Changes for the Better

MITSUBISHI ELECTRIC

SPLIT-TYPE, HEAT PUMP AIR CONDITIONERS

August 2011

No.OC322

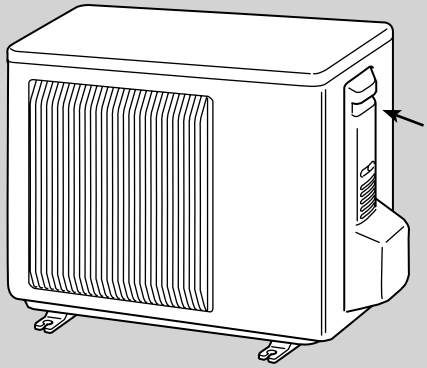
REVISED EDITION-G

HFC utilized R410A

TECHNICAL & SERVICE MANUAL R410A

Outdoor unit

[Model names]	[Service Ref.]	
SUZ-KA25VA	SUZ-KA25VA.TH	SUZ-KA25VAR1.TH
SUZ-KA35VA	SUZ-KA35VA.TH	SUZ-KA35VAR1.TH
SUZ-KA25VAH	SUZ-KA25VAH.TH	SUZ-KA25VAHR1.TH
SUZ-KA35VAH	SUZ-KA35VAH.TH	SUZ-KA35VAHR1.TH
SUZ-KA50VA	SUZ-KA50VA.TH	
	SUZ-KA50VA$_1$.TH	
	SUZ-KA50VAR2.TH	
SUZ-KA60VA	SUZ-KA60VA.TH	
	SUZ-KA60VA$_1$.TH	
	SUZ-KA60VAR2.TH	
SUZ-KA71VA	SUZ-KA71VA.TH	
	SUZ-KA71VA$_1$.TH	



SUZ-KA25VA(H).TH SUZ-KA25VA(H)R1.TH
SUZ-KA35VA(H).TH SUZ-KA35VA(H)R1.TH

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Revision:
• Errors in "11. SERVICE FUNCTIONS" and "12. TROUBLESHOOTING" have been corrected in REVISED EDITION-G.

• Please void OC322 REVISED EDITION-F.

Note:
This service manual describes technical data of the outdoor units.
RoHS compliant products have <G> mark on the spec name plate. For servicing of RoHS compliant products, refer to the RoHS Parts List.

1 COMBINATION OF INDOOR AND OUTDOOR UNITS

1-1. INDOOR UNIT SERVICE MANUAL

	Indoor unit		Outdoor unit Heat pump type SUZ-				
	Service Ref.	Service Manual No.	KA25VA(H).TH KA25VA(H)R1.TH	KA35VA(H).TH KA35VA(H)R1.TH	KA50VA(1).TH KA50VAR2.TH	KA60VA(1).TH KA60VAR2.TH	KA71VA(1).TH
Heat pump without electric heater	SLZ-KA25VA(L).TH	OC320	○	—	—	—	—
	SLZ-KA35VA(L).TH		—	○	—	—	—
	SLZ-KA50VA(L).TH		—	—	○	—	—
	SEZ-KC25VA.W	—	○	—	—	—	—
	SEZ-KA35VA.TH	OC321	—	○	—	—	—
	SEZ-KA50VA.TH		—	—	○	—	—
	SEZ-KA60VA.TH		—	—	—	○	—
	SEZ-KA71VA.TH		—	—	—	—	○
	SEZ-KD25VA(L).TH	HWE0711	○	—	—	—	—
	SEZ-KD35VA(L).TH		—	○	—	—	—
	SEZ-KD50VA(L).TH		—	—	○	—	—
	SEZ-KD60VA(L).TH		—	—	—	○	—
	SEZ-KD71VA(L).TH		—	—	—	—	○
	MFZ-KA25VA-E1	OB409	○	—	—	—	—
	MFZ-KA35VA-E1		—	○	—	—	—
	MFZ-KA50VA-E1		—	—	○	—	—

(NOTE) • Please refer to the service manual of indoor unit or the technical data book for the combination data.
• Only MFZ-KA·VA series can be connected to SUZ-KA·VAH series.

1-2. TECHNICAL DATA BOOK

OCS03

2 TECHNICAL CHANGES

SUZ-KA25VA.TH ➔ SUZ-KA25VAR1.TH
SUZ-KA25VAH.TH ➔ SUZ-KA25VAHR1.TH
SUZ-KA35VA.TH ➔ SUZ-KA35VAR1.TH
SUZ-KA35VAH.TH ➔ SUZ-KA35VAHR1.TH

1. Inverter P.C. board and Power P.C. board have been changed.
2. Refrigerant circuit has been changed.
   - Compressor has been changed. (KNB073FDVH(C) → KNB073FFDHC : SUZ-KA25VA(H)R1.TH)
     (KNB092FCAH → KNB092FFAHC : SUZ-KA35VA(H)R1.TH)
   - Muffler of liquid pipe side has been deleted.
   - Muffler of gas pipe side has been changed.
   - Capillary tube of liquid pipe side has been added. (SUZ-KA35VA(H)R1.TH)
   - 4-way valve and R.V. coil have been changed.
   - Specification of LEV body has been changed.
   - Stop valve has been changed.
3. Precharged refrigerant amount has been changed. (900g → 800g : SUZ-KA25VA(H)R1.TH)
4. Fan motor has been changed. (RC0J50-AL → RC0J50-DB)
5. Outdoor heat exchanger temperature thermistor (RT68) has been added.

SUZ-KA50VA$_1$.TH ➔ SUZ-KA50VAR2.TH
SUZ-KA60VA$_1$.TH ➔ SUZ-KA60VAR2.TH

1. OUTDOOR ELECTRONIC CONTROL P.C. BOARD has been changed.
2. Compressor has been changed. (SNB130FLDH(1) → SNB130FGBH)
3. High pressure switch has been added. (SUZ-KA60VAR2.TH)
4. Thermistors (RT61, 62, 64, 65, 68) have been changed. (SUZ-KA50VAR2.TH)

SUZ-KA50VA.TH ➔ SUZ-KA50VA$_1$.TH
SUZ-KA60VA.TH ➔ SUZ-KA60VA$_1$.TH
SUZ-KA71VA.TH ➔ SUZ-KA71VA$_1$.TH

1. OUTDOOR ELECTRONIC CONTROL P.C. BOARD has been changed.
2. Max. height difference 15m → 30m (Except when combined with MFZ).
3. Guaranteed operating range
   Lower limit (Cooling/Outdoor) -10℃DB → -15℃DB (Except when combined with MFZ)

SUZ-KA25VA.TH
SUZ-KA35VA.TH

Lower limit (Heating/Outdoor) -10℃DB → -15℃DB.

SUZ-KA35VAH.TH

Defrost finish temperature has been changed (Refer to 11. SERVICE FUNCTIONS).

SUZ-A09VR.TH ➔ SUZ-KA25VA.TH
SUZ-A12VR.TH ➔ SUZ-KA35VA.TH

1. Indication of capacity has been changed.(BTU base → kW base)
2. Control method between indoor and outdoor unit has been changed.
3. Power supply method has been changed (change to supply from outdoor unit).
4. Terminal block for power supply has been added.
5. Power P.C. board has been changed.
6. Inverter P.C. board has been changed.
7. Refrigerant circuit has been changed.
   - Compressor has been changed. (KNB073FBVH → KNB073FDVH:SUZ-KA25VA) (KNB092FAAH → KNB092FCAH:SUZ-KA35VA)
   - Specification and position of muffler have been changed.
   - Path of outdoor heat exchanger has been changed.
   - 4-way valve and R.V. coil have been changed.
   - Stop valve has been changed.
8. Fan motor has been changed. (AC → DC)
9. Shape of grille has been changed.
10. Shape of service panel has been changed.
11. Shape of propeller has been changed.
12. Symbol on terminal block has been changed (to S1/S2/S3).

SUZ-A18VR ➔ SUZ-KA50VA.TH
SUZ-A24VR ➔ SUZ-KA60VA.TH

1. Indication of capacity has been changed.(BTU base → kW base)
2. Power supply method has been changed (change to supply from outdoor unit).
3. Outdoor electronic control P.C. board has been changed.
4. Noise filter P.C. board has been changed.
5. Length of fan motor lead wire has been changed.
6. Shape of relay panel has been changed.
7. Symbol on terminal block has been changed (to S1/S2/S3).
8. Control method between indoor and outdoor unit has been changed.

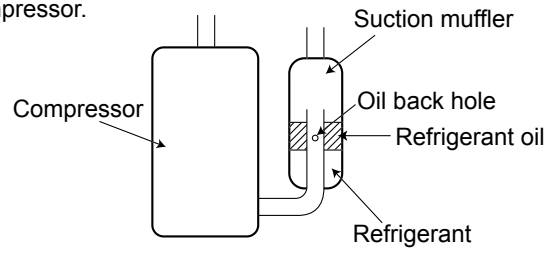
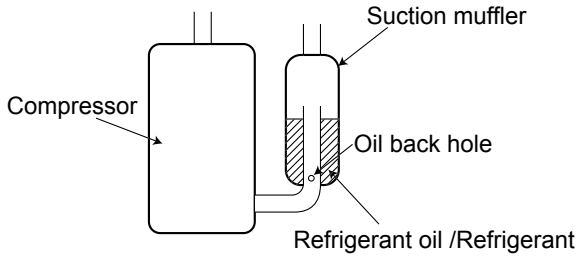
INFORMATION FOR THE AIR CONDITIONER WITH R410A REFRIGERANT

- This room air conditioner adopts an HFC refrigerant (R410A) which never destroys the ozone layer.
- Pay particular attention to the following points, though the basic installation procedure is same as that for R22 conditioners.

① As R410A has working pressure approximate 1.6 times as high as that of R22, some special tools and piping parts/ materials are required. Refer to the table below.
② Take sufficient care not to allow water and other contaminations to enter the R410A refrigerant during storage and installation, since it is more susceptible to contaminations than R22.
③ For refrigerant piping, use clean, pressure-proof parts/materials specifically designed for R410A. (Refer to 2. Refrigerant piping.)
④ Composition change may occur in R410A since it is a mixed refrigerant. When charging, charge liquid refrigerant to prevent composition change.

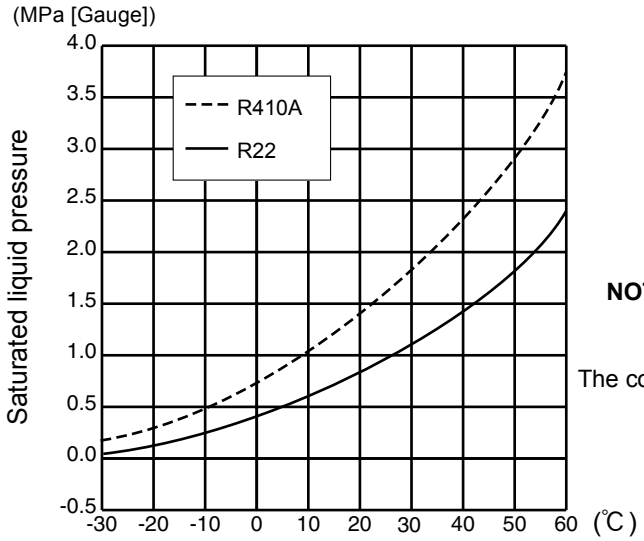
		New refrigerant	Previous refrigerant
Refrigerant	Refrigerant	R410A	R22
	Composition (Ratio)	HFC-32: HFC-125 (50%:50%)	R22 (100%)
	Refrigerant handling	Pseudo-azeotropic refrigerant	Single refrigerant
	Chlorine	Not included	Included
	Safety group (ASHRAE)	A1/A1	A1
	Molecular weight	72.6	86.5
	Boiling point (℃)	-51.4	-40.8
	Steam pressure [25℃](Mpa)	1.557	0.94
	Saturated steam density [25℃](Kg/m³)	64	44.4
	Combustibility	Non combustible	Non combustible
	ODP ※1	0	0.055
	GWP ※2	1730	1700
	Refrigerant charge method	From liquid phase in cylinder	Gas phase
	Additional charge on leakage	Possible	Possible
Refrigerant oil	Kind	Incompatible oil	Compatible oil
	Color	None	Light yellow
	Smell	None	None

※1: Ozone Depletion Potential : based on CFC-11
※2: Global Warming Potential : based on CO_2

	New Specification	Current Specification
Compressor	The incompatible refrigerant oil easily separates from refrigerant and is in the upper layer inside the suction muffler. Raising position of the oil back hole enables to back the refrigerant oil of the upper layer to flow back to the compressor. 	Since refrigerant and refrigerant oil are compatible with each other, refrigerant oil backs to the compressor through the lower position oil back hole. 

NOTE : The unit of pressure has been changed to MPa on the international system of units (SI unit system).
The conversion factor is: **1 (MPa [Gauge]) =10.2 (kgf/cm² [Gauge])**

Conversion chart of refrigerant temperature and pressure



NOTE: The unit of pressure has been changed to MPa on the international system of units (SI unit system).

The conversion factor is: **1 (MPa [Gauge]) =10.2 (kgf/cm² [Gauge])**

1. Tools dedicated for the air conditioner with R410A refrigerant

The following tools are required for R410A refrigerant. Some R22 tools can be substituted for R410A tools.
The diameter of the service port on the stop valve in outdoor unit has been changed to prevent any other refrigerant being charged into the unit. Cap size has been changed from 7/16 UNF with 20 threads to 1/2 UNF with 20 threads.

R410A tools	Can R22 tools be used?	Description
Gauge manifold	No	R410A has high pressures beyond the measurement range of existing gauges. Port diameters have been changed to prevent any other refrigerant from being charged into the unit.
Charge hose	No	Hose material and cap size have been changed to improve the pressure resistance.
Gas leak detector	No	Dedicated for HFC refrigerant.
Torque wrench	Yes	6.35 mm and 9.52 mm
	No	12.7 mm and 15.88 mm
Flare tool	Yes	Clamp bar hole has been enlarged to reinforce the spring strength in the tool.
Flare gauge	New	Provided for flaring work (to be used with R22 flare tool).
Vacuum pump adapter	New	Provided to prevent the back flow of oil. This adapter enables you to use vacuum pumps.
Electronic scale for refrigerant charging	New	It is difficult to measure R410A with a charging cylinder because the refrigerant bubbles due to high pressure and high-speed vaporization

No: Not substitutable for R410A Yes: Substitutable for R410A

2. Refrigerant piping

① Specifications

Use the refrigerant pipes that meet the following specifications.

Pipe	Outside diameter	Wall thickness	Insulation material
	mm	mm	
For liquid	6.35	0.8	Heat resisting foam plastic Specific gravity 0.045 Thickness 8 mm
	9.52	0.8	
For gas	9.52	0.8	
	12.7	0.8	
	15.88	1.0	

- Use a copper pipe or a copper-alloy seamless pipe with a thickness of 0.8 mm. Never use any pipe with a thickness less than 0.8mm, as the pressure resistance is insufficient.

② Flaring work and flare nut

Flaring work for R410A pipe differs from that for R22 pipe.

For details of flaring work, refer to Installation manual “FLARING WORK”.

Pipe diameter (mm)	Dimension of flare nut (mm)	
	R410A	R22
6.35	17	17
9.52	22	22
12.7	26	24
15.88	29	27

3. Refrigerant oil

Apply the special refrigerant oil (accessories: packed with indoor unit) to the flare and the union seat surfaces.

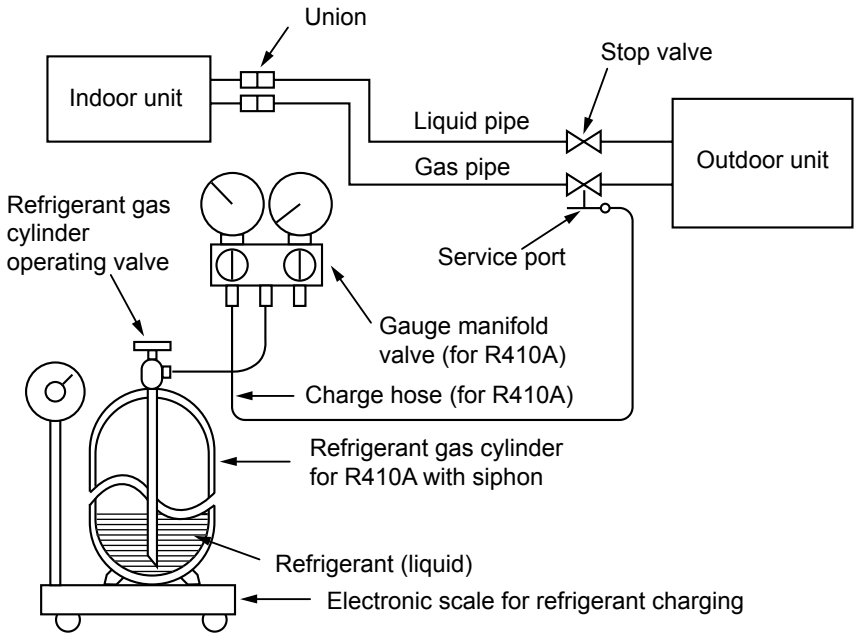
4. Air purge

- Do not discharge the refrigerant into the atmosphere.
  Take care not to discharge refrigerant into the atmosphere during installation, reinstallation, or repairs to the refrigerant circuit.
- Use the vacuum pump for air purging for the purpose of environmental protection.

5. Additional charge

For additional charging, charge the refrigerant from liquid phase of the gas cylinder.

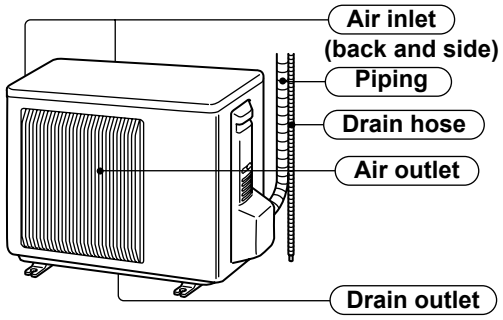
If the refrigerant is charged from the gas phase, composition change may occur in the refrigerant inside the cylinder and the outdoor unit. In this case, ability of the refrigerating cycle decreases or normal operation can be impossible. However, charging the liquid refrigerant all at once may cause the compressor to be locked. Thus, charge the refrigerant slowly.



3 PART NAMES AND FUNCTIONS

SUZ-KA25VA.TH
SUZ-KA35VA.TH
SUZ-KA25VAH.TH
SUZ-KA35VAH.TH
SUZ-KA25VAR1.TH
SUZ-KA35VAR1.TH
SUZ-KA25VAHR1.TH
SUZ-KA35VAHR1.TH

OUTDOOR UNIT

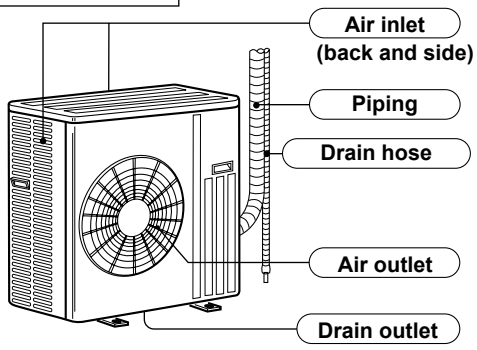


ACCESSORIES

		SUZ-KA25VA.TH SUZ-KA35VA.TH SUZ-KA25VAR1.TH SUZ-KA35VAR1.TH
①	Drain socket	1

SUZ-KA50VA.TH **SUZ-KA50VA$_1$.TH** **SUZ-KA50VAR2.TH**
SUZ-KA60VA.TH **SUZ-KA60VA$_1$.TH** **SUZ-KA60VAR2.TH**
SUZ-KA71VA.TH **SUZ-KA71VA$_1$.TH**

OUTDOOR UNIT



ACCESSORIES

		SUZ-KA50VA$_{(1)}$.TH SUZ-KA60VA$_{(1)}$.TH SUZ-KA71VA$_{(1)}$.TH SUZ-KA50VAR2.TH SUZ-KA60VAR2.TH
①	Drain socket	1
②	Drain cap ϕ33	2

4 SPECIFICATION

Outdoor Service Ref.			SUZ-KA25VA(H).TH		SUZ-KA25VA(H)R1.TH		SUZ-KA35VA(H).TH		SUZ-KA35VA(H)R1.TH		SUZ-KA50VA.TH SUZ-KA50VA1.TH	
Function			Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Power supply			Single phase 230V, 50Hz		Single phase 230V, 50Hz		Single phase 230V, 50Hz		Single phase 230V, 50Hz		Single phase 230V, 50Hz	
Electrical data	Starting current *1	A	3.65		3.65		4.75		4.75		6.75	
	Compressor motor current *1	A	2.74	3.37	2.74	3.37	4.22	4.42	4.22	4.42	6.45	6.05
	Fan motor current *1	A	0.31	0.28	0.31	0.28	0.33	0.33	0.33	0.33	0.30	
Compressor	Model		KNB073FDVH(C)		KNB073FFDH(C)		KNB092FCAH		KNB092FFAH(C)		SNB130FLDH or SNB130FLDH1	
	Output	W	550		550		650		650		850	
	Winding resistance (at 20℃)	Ω	U-V 1.53 U-W 1.53 V-W 1.53		U-V 1.70 U-W 1.70 V-W 1.70		U-V 0.49 U-W 0.49 V-W 0.49		U-V 1.91 U-W 1.91 V-W 1.91		U-V 0.45 U-W 0.45 V-W 0.45	
Fan motor	Model		RC0J50-AL		RC0J50-DB		RC0J50-AL		RC0J50-DB		RC0J60-AA	
	Winding resistance(at 20℃)	Ω	WHT-BLK 37.5 BLK-RED 37.5 RED-WHT 37.5		WHT-BLK 37.0 BLK-RED 37.0 RED-WHT 37.0		WHT-BLK 37.5 BLK-RED 37.5 RED-WHT 37.5		WHT-BLK 37.0 BLK-RED 37.0 RED-WHT 37.0		WHT-BLK 15.2 BLK-RED 15.2 RED-WHT 15.2	
Capacity	Air flow(High/Low※)	m³/h	2,058	1,938	2,058	1,938	2,004		2,004		2,940/1,650※	2,940/2,210※
	Dimensions W×H×D	mm	800×550×285		800×550×285		800×550×285		800×550×285		840×850×330	
	Weight	kg	33		30		37		33		53	
Special remarks	Sound level *1	dB	46		46		47	48	47	48	53/51※	55/53※
	Fan speed(High※/Low※, High※/Med※/Low※)	rpm	810※/650※	880※/810※/650※	810※/650※	880※/810※/650※	840※/760※	880※/800※/630※	840※/760※	880※/800※/630※	800/480※	800/620※
	Fan speed regulator		2	3	2	3	2	3	2	3	2	
	Refrigerant filling capacity(R410A)	kg	0.90		0.80		1.05		1.05		1.60	
	Refrigerating oil (Model)	cc	320 (NEO22)		320 (NEO22)		320 (NEO22)		320 (NEO22)		FLDH: 450/FLDH1: 600(NEO22)	

NOTE : Test conditions are based on ISO 5151
Cooling : Indoor D.B. 27℃ W.B. 19℃
Outdoor D.B. 35℃ W.B. 24℃
Heating : Indoor D.B. 20℃ W.B. 15℃
Outdoor D.B. 7℃ W.B. 6℃
Refrigerant piping length (one way): 5m
*1 Measured under rated operating frequency.
※ Reference value

Outdoor Service Ref.			SUZ-KA50VAR2.TH		SUZ-KA60VA.TH SUZ-KA60VA1.TH		SUZ-KA60VAR2.TH		SUZ-KA71VA.TH SUZ-KA71VA1.TH	
Function			Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Power supply			Single phase 230V, 50Hz		Single phase 230V, 50Hz		Single phase 230V, 50Hz		Single phase 230V, 50Hz	
Electrical data	Starting current *1	A	6.75		9.75		9.75		10.30	
	Compressor motor current *1	A	6.45	6.05	8.05	9.45	8.05	9.45	10.00	9.60
	Fan motor current *1	A	0.30		0.30		0.30		0.30	
Compressor	Model		SNB130FGBH(T)		SNB130FLDH or SNB130FLDH1		SNB130FGBH(T)		TNB220FMCH(T)	
	Output	W	900		850		900		1300	
	Winding resistance (at 20℃)	Ω	U-V 0.98 U-W 0.98 V-W 0.98		U-V 0.45 U-W 0.45 V-W 0.45		U-V 0.98 U-W 0.98 V-W 0.98		U-V 1.41 U-W 1.41 V-W 1.41	
Fan motor	Model		RC0J60-AA		RC0J60-AA		RC0J60-AA		RC0J60-AA	
	Winding resistance(at 20℃)	Ω	WHT-BLK 15.2 BLK-RED 15.2 RED-WHT 15.2		WHT-BLK 15.2 BLK-RED 15.2 RED-WHT 15.2		WHT-BLK 15.2 BLK-RED 15.2 RED-WHT 15.2		WHT-BLK 15.2 BLK-RED 15.2 RED-WHT 15.2	
Capa-city	Air flow(High/Low※)	m³ /h	2,940/1,650※	2,940/2,210※	2,940/1650※	2,940/2,210※	2,940/1650※	2,940/2,210※	2,940/1650※	2,940/2,210※
	Dimensions W×H×D	mm	840×850×330		840×850×330		840×850×330		840×850×330	
	Weight	kg	53		53		53		58	
Special remarks	Sound level *1	dB	53/51※	55/53※	53/51※	55/53※	53/51※	55/53※	53/51※	55/53※
	Fan speed(High※/Low※, High※/Med※/Low※)	rpm	800/480※	800/620※	800/480※	800/620※	800/480※	800/620※	800/480※	800/620※
	Fan speed regulator		2		2		2		2	
	Refrigerant filling capacity(R410A)	kg	1.60		1.80		1.80		2.00	
	Refrigerating oil (Model)	cc	450 (NEO22)		FLDH: 450/FLDH1: 600 (NEO22)		450 (NEO22)		870 (NEO22)	

NOTE : Test conditions are based on ISO 5151
Cooling : Indoor D.B. 27℃ W.B. 19℃
Outdoor D.B. 35℃ W.B. 24℃
Heating : Indoor D.B. 20℃ W.B. 15℃
Outdoor D.B. 7℃ W.B. 6℃
Refrigerant piping length (one way): 5m
*1 Measured under rated operating frequency.
※ Reference value

Specifications and rating conditions of main electric parts

SUZ-KA25VA.TH SUZ-KA25VAH.TH
SUZ-KA35VA.TH SUZ-KA35VAH.TH

Item \ Model		SUZ-KA25VA.TH	SUZ-KA25VAH.TH	SUZ-KA35VA.TH	SUZ-KA35VAH.TH
Current transformer	(CT)	ETA19Z59BZ			
Current transformer	(CT761, CT781)	ETQ19Z71AY			
Smoothing capacitor	(C63A, C63B, C63C)	620μF 420V			
Diode module	(DB61, DB65)	D25×B60			
Fuse	(F61)	250V 20A			
Fuse	(F71, F801, F901)	250V 3.15A			
Defrost heater	(H)	—	230V 130W	—	230V 130W
Intelligent power module	(IPM)	PS21244-A-203			
Expansion valve coil	(LEV)	CAD-MD12ME 12VDC			
Reactor	(L61)	10A 23.0mH			
Current-detecting resistor	(R61)	45mΩ 5W (1 element)		50mΩ 5W (2 elements)	
Current-detecting resistor	(R831)	25mΩ 5W			
Current-limiting resistor	(R64A, R64B)	5.1Ω 5W			
Terminal block	(TB1,TB2)	3P			
Relay	(X63)	G5NB-1a			
Relay	(X64)	G4A-1A-PS			
Relay	(X66)	—	G5NB-1a	—	G5NB-1a
R.V. coil	(21S4)	STF-01AJ503			
Heater protector	(26H)	—	Open 45℃	—	Open 45℃

SUZ-KA50VA.TH SUZ-KA50VA1.TH
SUZ-KA60VA.TH SUZ-KA60VA1.TH SUZ-KA60VAR2.TH
SUZ-KA71VA.TH SUZ-KA71VA1.TH

Item \ Model		SUZ-KA50VA.TH SUZ-KA50VA1.TH	SUZ-KA60VA.TH SUZ-KA60VA1.TH SUZ-KA60VAR2.TH	SUZ-KA71VA.TH SUZ-KA71VA1.TH
Smoothing capacitor	(CB1,2,3)	560μF 450V		
Current transformer	(CT1,2)	ETQ19Z68AY		
Current transformer	(CT61)	ETQ19Z53AY		
Fuse	(F64)	250V 2A		
Fuse	(F801)	250V 3.15A		
Fuse	(F911)	250V 1A		
Intelligent power module	(HC930)	PS21661-RZ		
High pressure switch	(HPS)	—	ACB-DB156 (for R2)	ACB-DB156
Intelligent power module	(IPM)	PS21244-A		
Reactor	(L)	340μH 20A		
Expansion valve coil	(LEV)	DC12V		
Power factor controller	(PFC)	PS51259-A		
Resistor	(R64A,B)	10Ω 10W		
Resistor	(R937A,B)	1.1Ω 2W 2%		
Resistor	(RS1~4)	0.04Ω 7W		
Solenoid coil relay	(SSR61)	TLP3506		
Terminal block	(TB1)	3P		
Terminal block	(TB2)	3P		
Relay	(X64)	G4A		
R.V. coil	(21S4)	AC 220 - 240V		

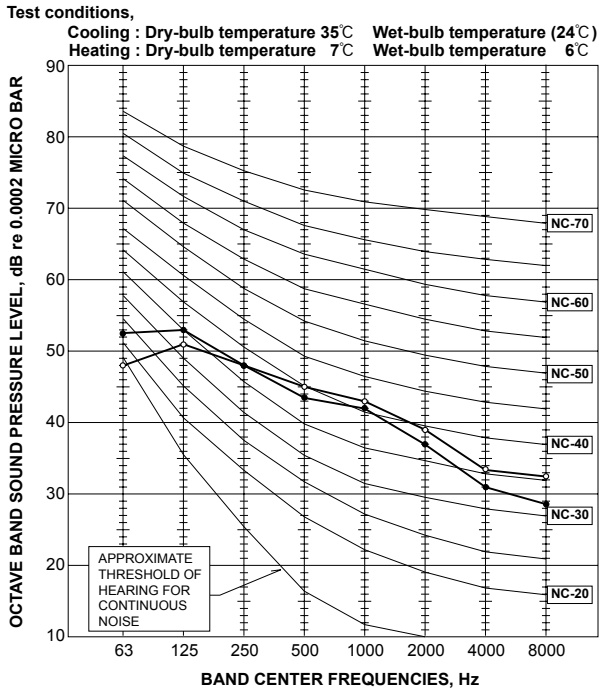
SUZ-KA25VAR1.TH SUZ-KA25VAHR1.TH
SUZ-KA35VAR1.TH SUZ-KA35VAHR1.TH
SUZ-KA50VAR2.TH

Item \ Model		SUZ-KA25VAR1.TH	SUZ-KA25VAHR1.TH	SUZ-KA35VAR1.TH	SUZ-KA35VAHR1.TH	SUZ-KA50VAR2.TH
Current transformer	(CT)	20 A				
	(CT761, CT781)	15 A				
Smoothing capacitor	(C61)	—				620 µF 420 V
	(C62, C63)	620 µF 420 V				
Diode module	(DB61)	15 A 600 V				25 A 600 V
	(DB65)	25 A 600 V				
Fuse	(F61)	T20AL250V				
	(F701, F801, F901)	T3.15AL250V				
Defrost heater	(H)	—	230 V 130 W	—	230 V 130 W	—
Intelligent power module	(IPM)	15 A 600 V				20 A 600 V
Expansion valve coil	(LEV)	DC 12 V				
Reactor	(L61)	23 mH				
Current-detecting resistor	(R61)	45 mΩ 5 W (1 element)		100 mΩ 5 W (2 elements)		—
	(R61,R62)	—				180 mΩ 5 W (2 elements)
	(R825)	25 mΩ 5 W				
	(R937, R938, R939)	430 mΩ 2 W				—
	(R937A, R937B)	—				1.1 Ω 2 W
Current-limiting PTC thermistor	(PTC64, PTC65)	33 Ω				
Terminal block	(TB1, TB2)	3 P				
Relay	(X63)	3 A 250 V				
	(X64)	20 A 250 V				
	(X66)	—	3 A 250 V	—	3 A 250 V	—
R.V. coil	(21S4)	AC 220 - 240 V				
Heater protector	(26H)	—	Open 45°C	—	Open 45°C	—
IGBT	(TR821)	30 A 600 V				

5 NOISE CRITERIA CURVES

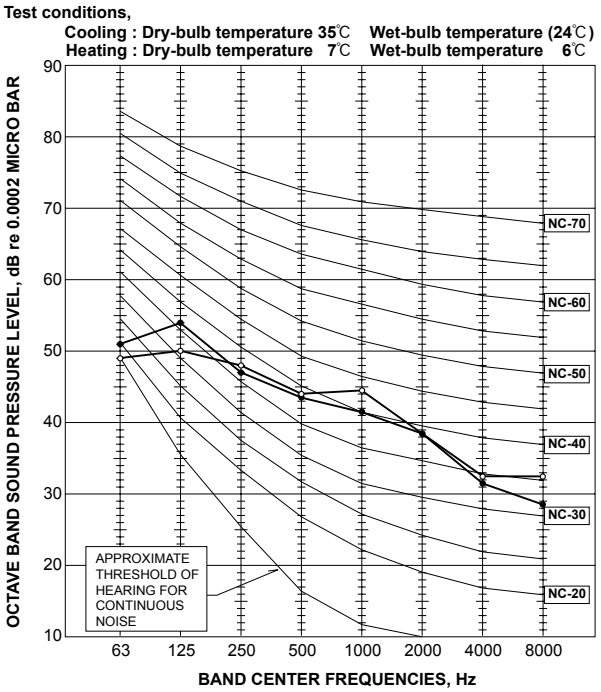
SUZ-KA25VA.TH SUZ-KA25VAR1.TH SUZ-KA25VAH.TH SUZ-KA25VAHR1.TH

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High Med.	COOLING	46	●—●
	HEATING	46	○—○



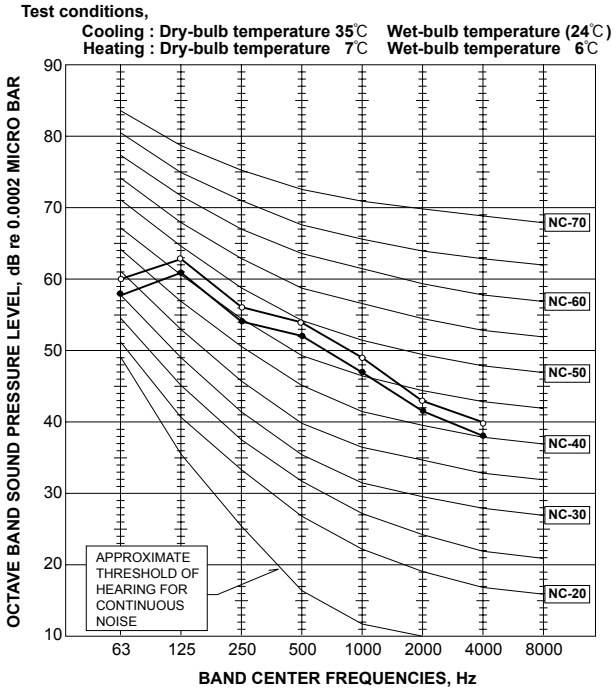
SUZ-KA35VA.TH SUZ-KA35VAR1.TH SUZ-KA35VAH.TH SUZ-KA35VAHR1.TH

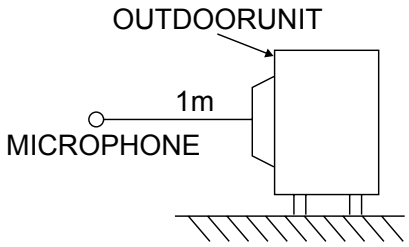
FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High Med.	COOLING	47	●—●
	HEATING	48	○—○



SUZ-KA50VA.TH SUZ-KA50VA1.TH SUZ-KA50VAR2.TH SUZ-KA60VA.TH SUZ-KA60VA1.TH SUZ-KA60VAR2.TH SUZ-KA71VA.TH SUZ-KA71VA1.TH

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	COOLING	53	●—●
	HEATING	55	○—○



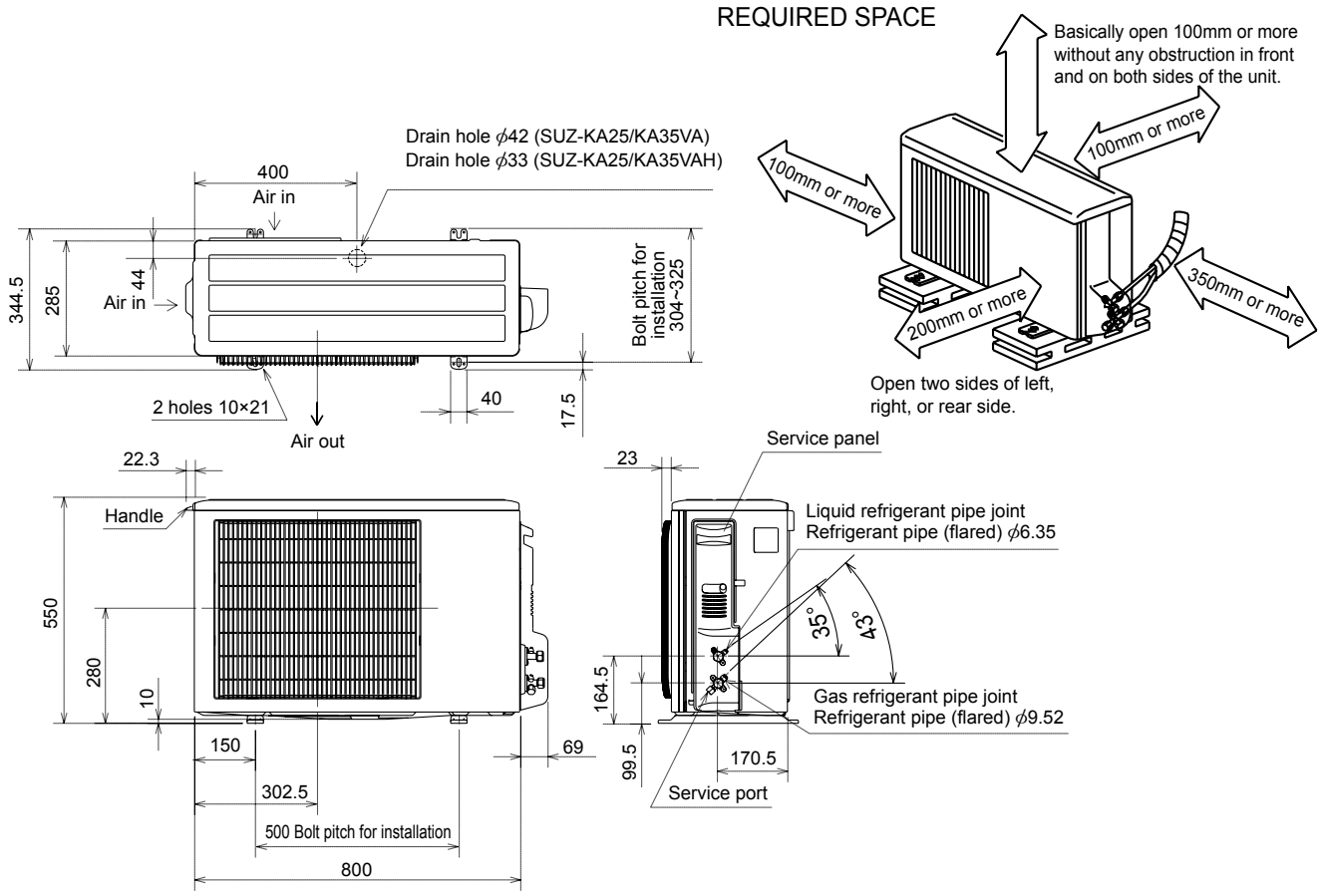


6 OUTLINES AND DIMENSIONS

SUZ-KA25VA.TH SUZ-KA25VAH.TH SUZ-KA25VAR1.TH SUZ-KA25VAHR1.TH
SUZ-KA35VA.TH SUZ-KA35VAH.TH SUZ-KA35VAR1.TH SUZ-KA35VAHR1.TH

OUTDOOR UNIT

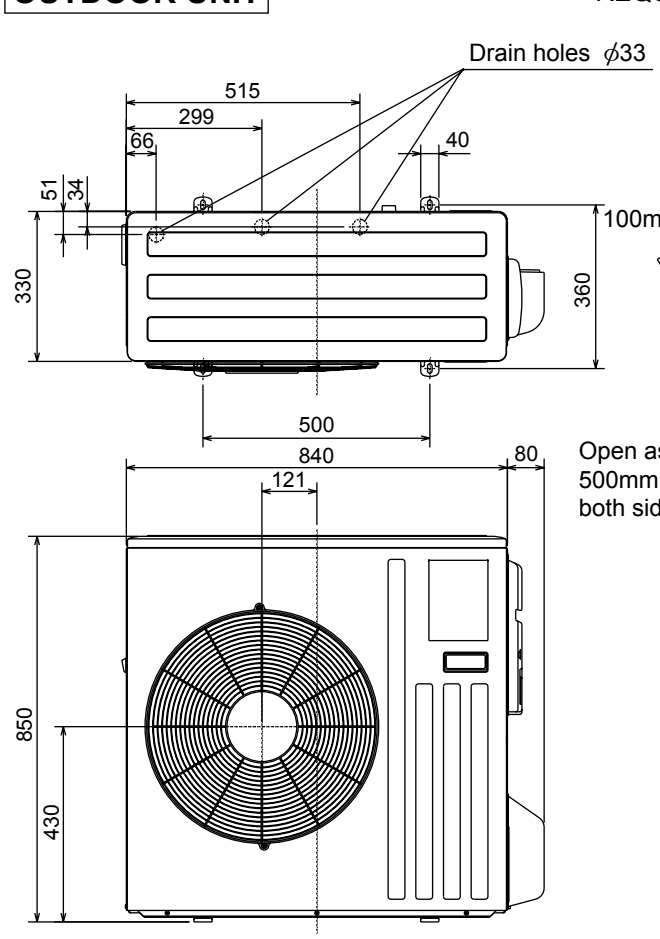
Unit: mm



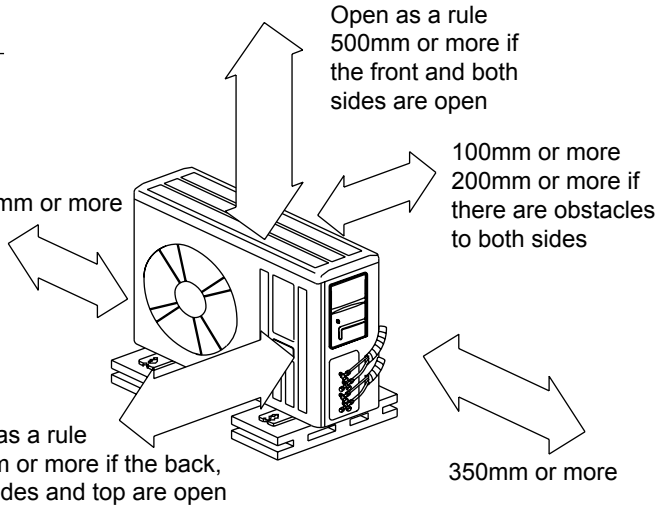
SUZ-KA50VA.TH SUZ-KA50VA1.TH SUZ-KA50VAR2.TH
SUZ-KA60VA.TH SUZ-KA60VA1.TH SUZ-KA60VAR2.TH
SUZ-KA71VA.TH SUZ-KA71VA1.TH

Unit: mm

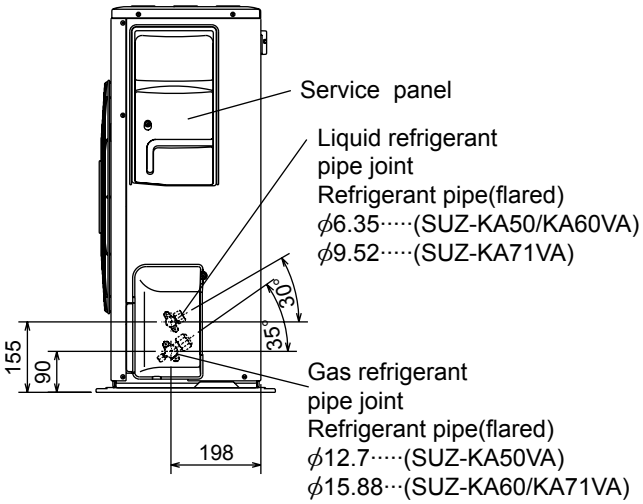
OUTDOOR UNIT



REQUIRED SPACE



Open as a rule
500mm or more if the back,
both sides and top are open

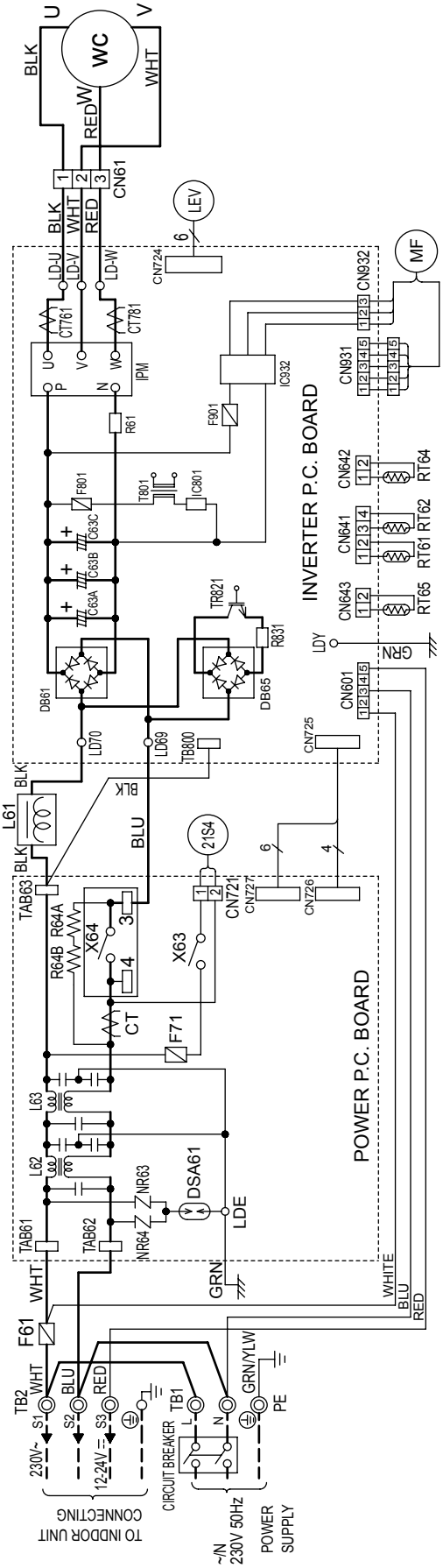


7 WIRING DIAGRAM

SUZ-KA25VA.TH
SUZ-KA35VA.TH

OUTDOOR UNIT

MODELS WIRING DIAGRAM

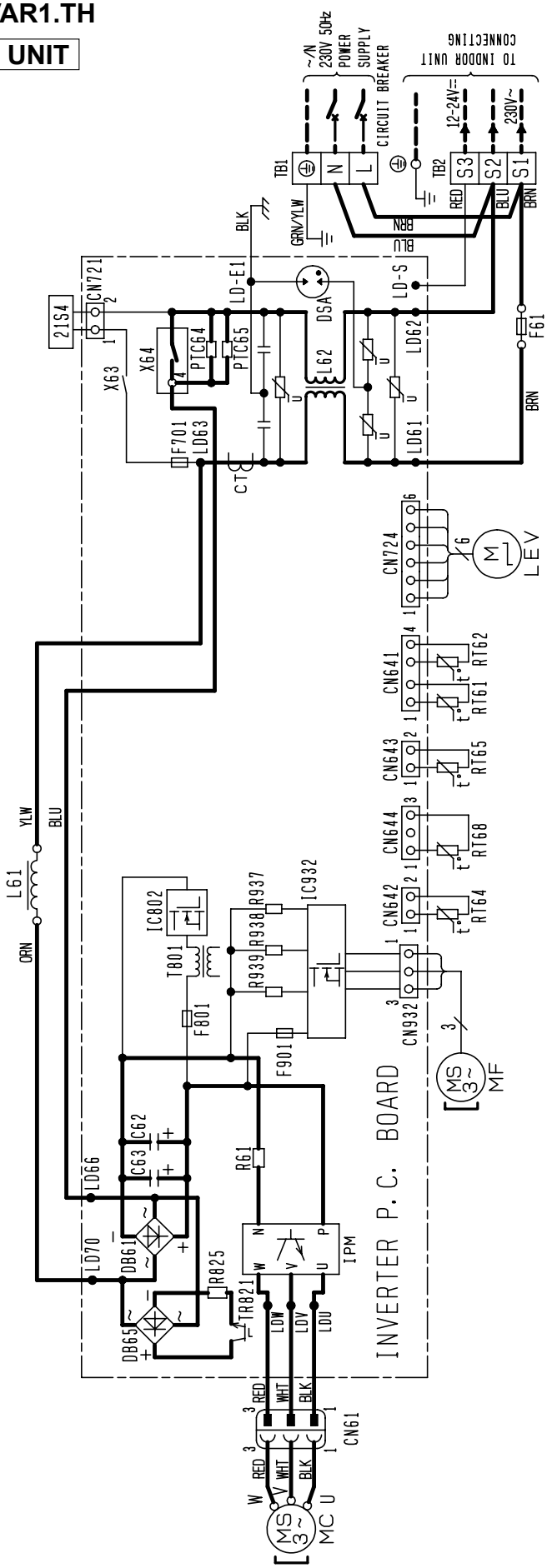


NOTES:1. About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2. Use copper conductors only. (For field wiring)
3. Symbols below indicate.
◎: Terminal block, □□□□ : Connector

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CT,CT761,CT781	CURRENT TRANSFORMER	L61	REACTOR	R61,R831	CURRENT-DETECTING RESISTOR
C63A,C63B,C63C	SMOOTHING CAPACITOR	L62,L63	CMC COIL	R64A,R64B	CURRENT-LIMITING RESISTOR
DB61,DB65	DIODE MODULE	MC	COMPRESSOR	TB1,TB2	TERMINAL BLOCK
DSA61	SURGE ABSORBER	MF	OUTDOOR FAN MOTOR	TR821	SWITCHING POWER TRANSISTOR
F61	FUSE (T20AL250V)	NR63,NR64	VARISTOR	T801	TRANSFORMER
F71	FUSE (T3.15AL250V)	RT61	DEFROST THERMISTOR	X63,X64	RELAY
F801,F901	FUSE (T3.15AL250V)	RT62	DISCHARGE TEMPERATURE THERMISTOR	21S4	REVERSING VALVE COIL
IC801	INTELLIGENT POWER DEVICE	RT64	FIN TEMPERATURE THERMISTOR	LEV	EXPANSION VALVE COIL
IPM,IC932	INTELLIGENT POWER MODULE	RT65	AMBIENT TEMPERATURE THERMISTOR		

SUZ-KA25VAR1.TH
SUZ-KA35VAR1.TH

OUTDOOR UNIT



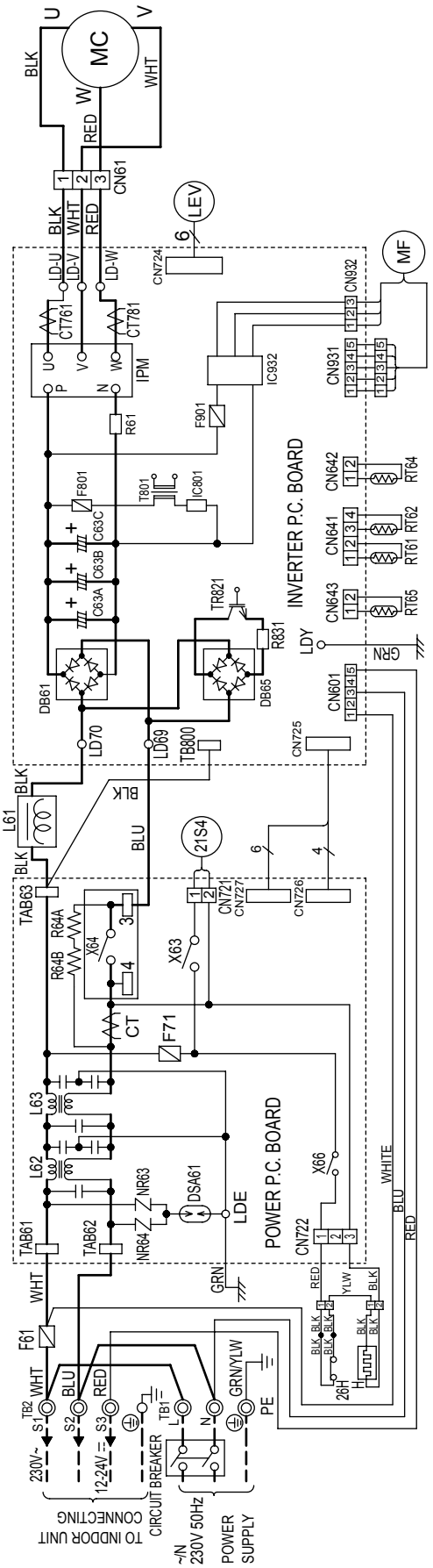
NOTES:1. About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2. Use copper conductors only. (For field wiring)
3. Symbols below indicate.
□□□ : Terminal block

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CT	CURRENT TRANSFORMER	LEV	EXPANSION VALVE COIL	R61	CURRENT-DETECTING RESISTOR
C62, C63	SMOOTHING CAPACITOR	MC	COMPRESSOR	R825, R937	CURRENT-DETECTING RESISTOR
DB61, DB65	DIODE MODULE	MF	FAN MOTOR	R938, R939	CURRENT-DETECTING RESISTOR
DSA	SURGE ABSORBER	PTC64, PTC65	CIRCUIT PROTECTION	TB1, TB2	TERMINAL BLOCK
F61	FUSE (T20AL250V)	RT61	DEFROST THERMISTOR	TR821	SWITCHING POWER TRANSISTOR
F701, F801, F901	FUSE (T3.15AL250V)	RT62	DISCHARGE TEMP. THERMISTOR	T801	TRANSFORMER
IC802	INTELLIGENT POWER DEVICE	RT64	FIN TEMP. THERMISTOR	X63, X64	RELAY
IPM, IC932	INTELLIGENT POWER MODULE	RT65	AMBIENT TEMP. THERMISTOR	21S4	REVERSING VALVE COIL
LG1	REACTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR.		
LG2	CMC COIL				

SUZ-KA25VAH.TH
SUZ-KA35VAH.TH

OUTDOOR UNIT

MODELS WIRING DIAGRAM

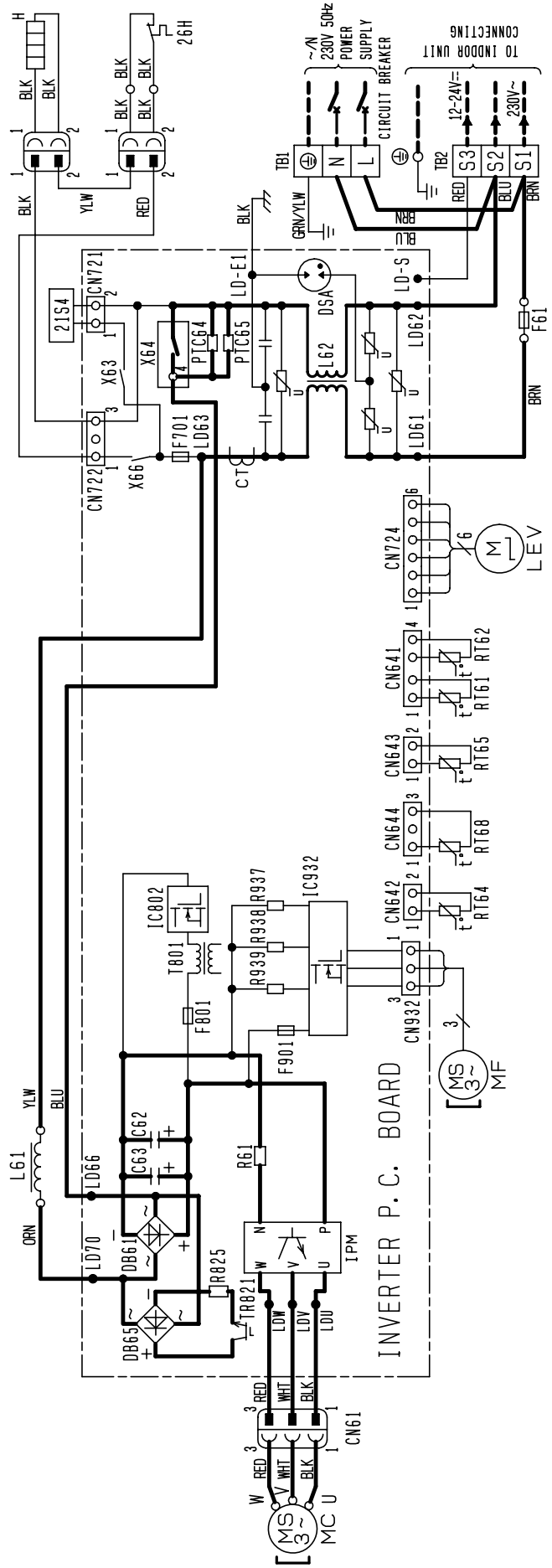


NOTES:1. About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2. Use copper conductors only. (For field wiring)
3. Symbols below indicate.
◎: Terminal block, □□□□ : Connector

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CT,CT761,CT781	CURRENT TRANSFORMER	L61	REACTOR	R64A,R64B	CURRENT-LIMITING RESISTOR
C63A,C63B,C63C	SMOOTHING CAPACITOR	L62,L63	CMC COIL	TB1,TB2	TERMINAL BLOCK
DB61,DB65	DIODE MODULE	MC	COMPRESSOR	TR821	SWITCHING POWER TRANSISTOR
DSA61	SURGE ABSORBER	MF	OUTDOOR FAN MOTOR	T801	TRANSFORMER
F61	FUSE (T20AL250V)	NR63,NR64	VARISTOR	X63,X64,X66	RELAY
F71	FUSE (T3.15AL250V)	RT61	DEFROST THERMISTOR	21S4	REVERSING VALVE COIL
F801,F901	FUSE (T3.15AL250V)	RT62	DISCHARGE TEMPERATURE THERMISTOR	H	DEFROST HEATER
IC801	INTELLIGENT POWER DEVICE	RT64	FIN TEMPERATURE THERMISTOR	26H	HEATER PROTECTOR
IPM,IC932	INTELLIGENT POWER MODULE	RT65	AMBIENT TEMPERATURE THERMISTOR		
LEV	EXPANSION VALVE COIL	R61,R831	CURRENT-DETECTING RESISTOR		

SUZ-KA25VAHR1.TH
SUZ-KA35VAHR1.TH

OUTDOOR UNIT



NOTES:1. About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2. Use copper conductors only. (For field wiring)
3. Symbols below indicate.
□□□ : Terminal block

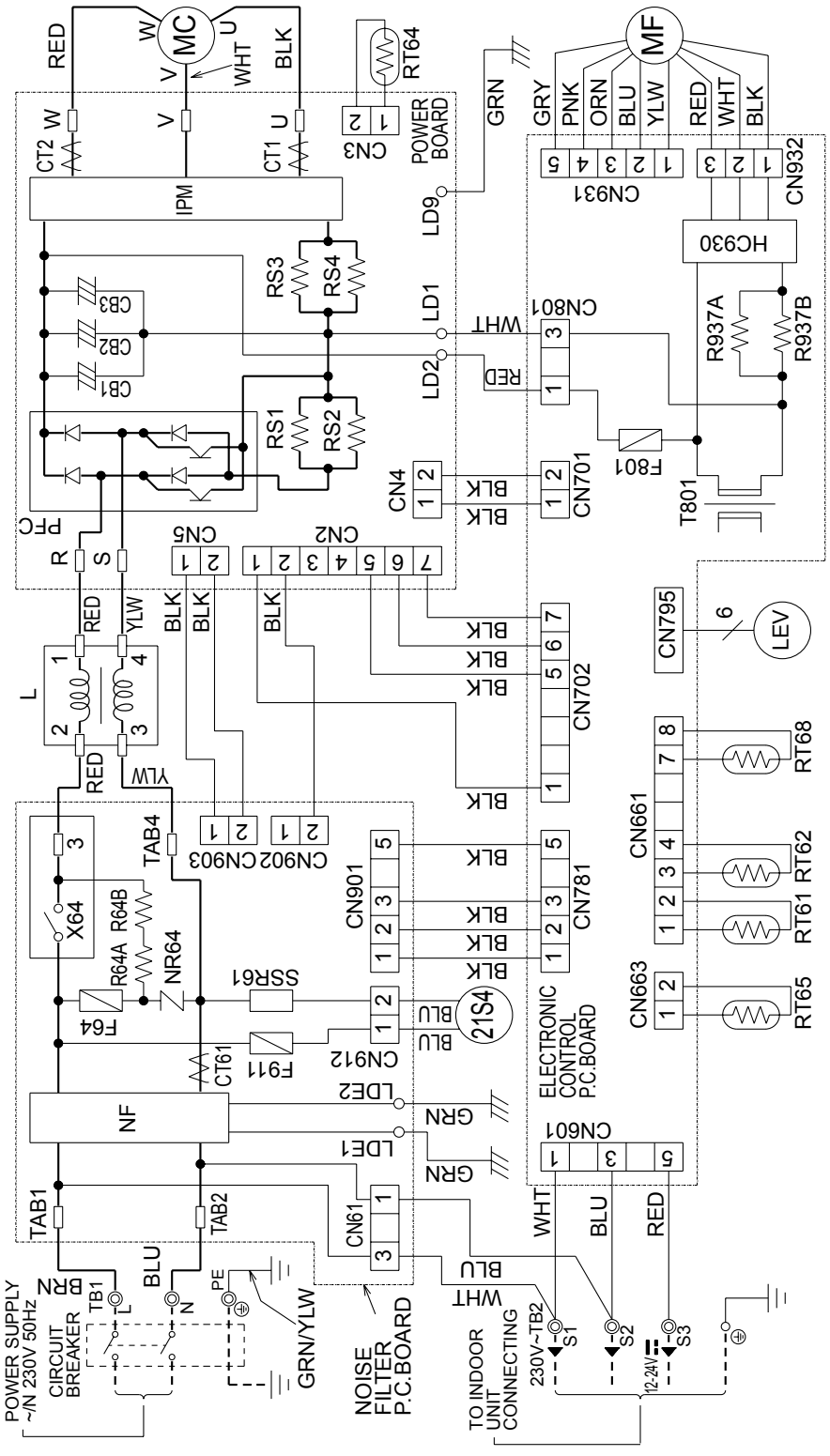
SYMBOL	NAME
CT	CURRENT TRANSFORMER
C62, C63	SMOOTHING CAPACITOR
DB61, DB65	DIODE MODULE
DSA	SURGE ABSORBER
F61	FUSE (T20AL250V)
F701, F801, F901	FUSE (T3.15AL250V)
IC802	INTELLIGENT POWER DEVICE
IPM, IC932	INTELLIGENT POWER MODULE
L61	REACTOR
L62	CMC COIL

SYMBOL	NAME
LEV	EXPANSION VALVE COIL
MC	COMPRESSOR
MF	FAN MOTOR
PTC64, PTC65	CIRCUIT PROTECTION
RT61	DEFROST THERMISTOR
RT62	DISCHARGE TEMP. THERMISTOR
RT64	FIN TEMP. THERMISTOR
RT65	AMBIENT TEMP. THERMISTOR
RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR.

SYMBOL	NAME
R61	CURRENT-DETECTING RESISTOR
R825, R937	CURRENT-DETECTING RESISTOR
R938, R939	CURRENT-DETECTING RESISTOR
TB1, TB2	TERMINAL BLOCK
TR821	SWITCHING POWER TRANSISTOR
T801	TRANSFORMER
X63, X64, X66	RELAY
21S4	REVERSING VALVE COIL
H	DEFROST HEATER
26H	HEATER PROTECTOR

SUZ-KA50VA.TH SUZ-KA50VA1.TH
SUZ-KA60VA.TH SUZ-KA60VA1.TH

OUTDOOR UNIT

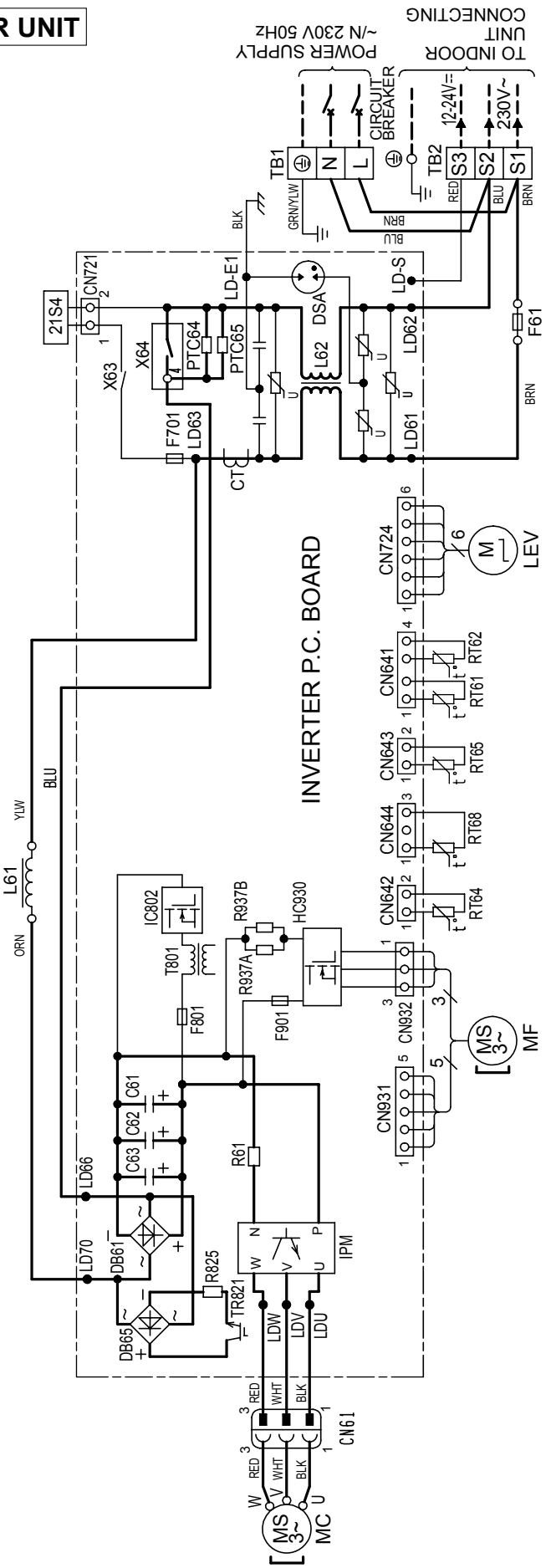


NOTES: 1. About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2. Use copper conductors only (for field wiring).
3. Symbols below indicate.
◎:Terminal block □□□:Connector

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CB1~3	SMOOTHING CAPACITOR	MC	COMPRESSOR	RT64	FIN TEMPERATURE THERMISTOR
CT1, 2	CURRENT TRANSFORMER	MF	OUTDOOR FAN MOTOR	RT65	AMBIENT TEMPERATURE THERMISTOR
CT61	CURRENT TRANSFORMER	NF	NOISE FILTER	RT68	OUTDOOR HEAT EXCHANGER TEMPERATURE THERMISTOR
F64	FUSE (T2AL 250V)	NR64	VARISTOR		
F801	FUSE (T3.15AL 250V)	PFC	POWER FACTOR CONTROLLER	SSR61	SOLENOID COIL RELAY
F911	FUSE (T1AL 250V)	R64A,B	RESISTOR	T801	TRANSFORMER
HC930	INTELLIGENT POWER MODULE	R937A, B	RESISTOR	TB1	TERMINAL BLOCK
IPM	INTELLIGENT POWER MODULE	RS1~4	RESISTOR	TB2	TERMINAL BLOCK
L	REACTOR	RT61	DEFROST THERMISTOR	X64	RELAY
LEV	EXPANSION VALVE COIL	RT62	DISCHARGE TEMPERATURE THERMISTOR	21S4	REVERSING VALVE COIL

SUZ-KA50VAR2.TH

OUTDOOR UNIT



SYMBOL	NAME
CT	CURRENT TRANSFORMER
C61,62,63	SMOOTHING CAPACITOR
DB61,DB65	DIODE MODULE
DSA	SURGE ABSORBER
F61	FUSE (T20AL 250V)
F701,F801,F901	FUSE (T3.15AL 250V)
HC930,IPM	INTELLIGENT POWER MODULE
IC802	INTELLIGENT POWER DEVICE
L61	REACTOR
L62	REACTOR

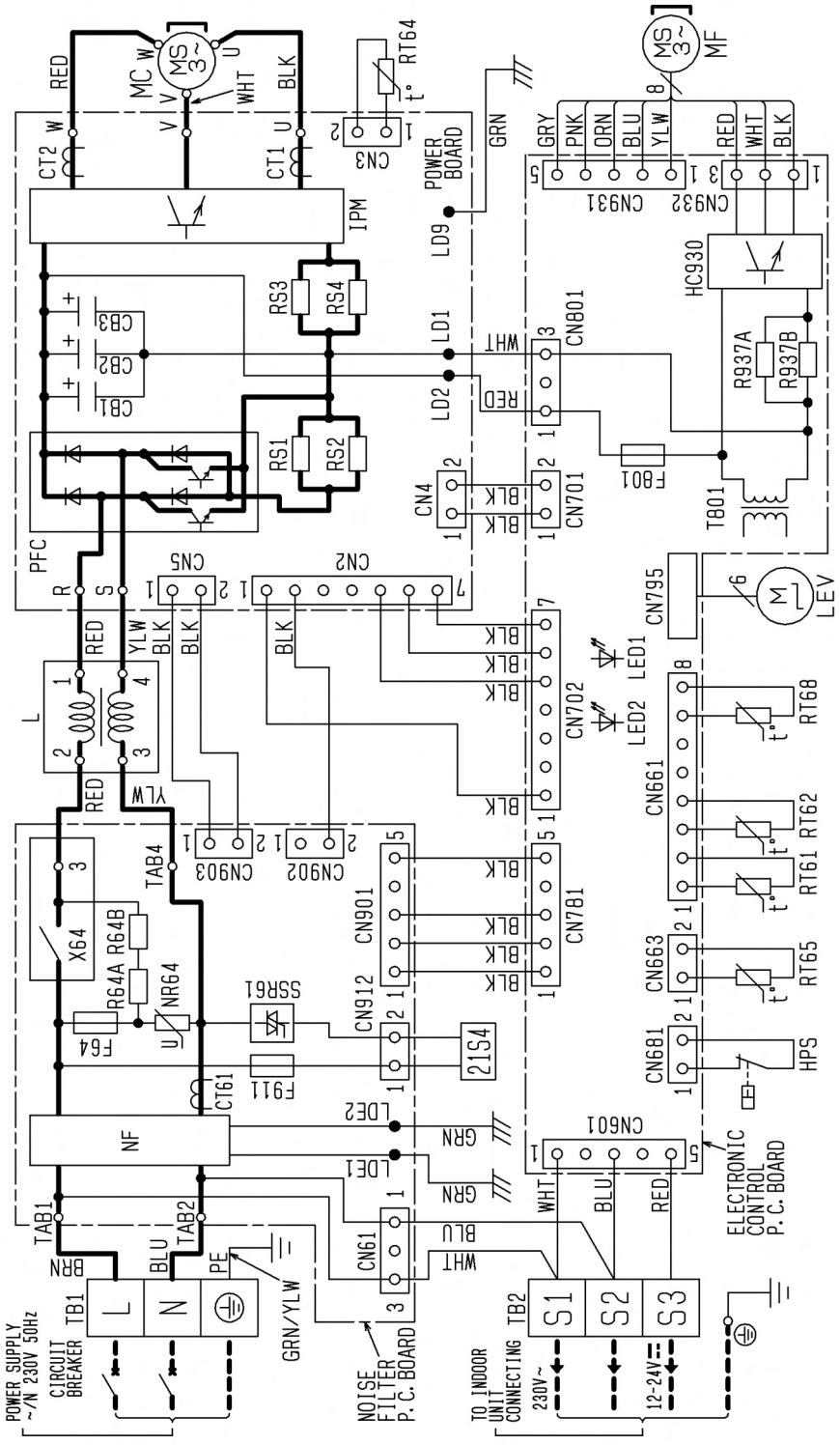
SYMBOL	NAME
LEV	EXPANSION VALVE COIL
MC	COMPRESSOR
MF	FAN MOTOR
PTC64,PTC65	CIRCUIT PROTECTION
RT61	DEFROST THERMISTOR
RT62	DISCHARGE TEMP. THERMISTOR
RT64	FIN TEMP. THERMISTOR
RT65	AMBIENT TEMP. THERMISTOR
RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR

SYMBOL	NAME
R61	CURRENT-DETECTING RESISTOR
R825	CURRENT-DETECTING RESISTOR
R937A, B	CURRENT-DETECTING RESISTOR
TB1, TB52	TERMINAL BLOCK
TR821	SWITCHING POWER TRANSISTOR
T801	TRANSFORMER
X63,X64	RELAY
21S4	REVERSING VALVE COIL

NOTES: 1. About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2. Use copper conductors only (for field wiring).
3. Symbols below indicate.
□□□ :Terminal block

SUZ-KA60VAR2.TH

OUTDOOR UNIT

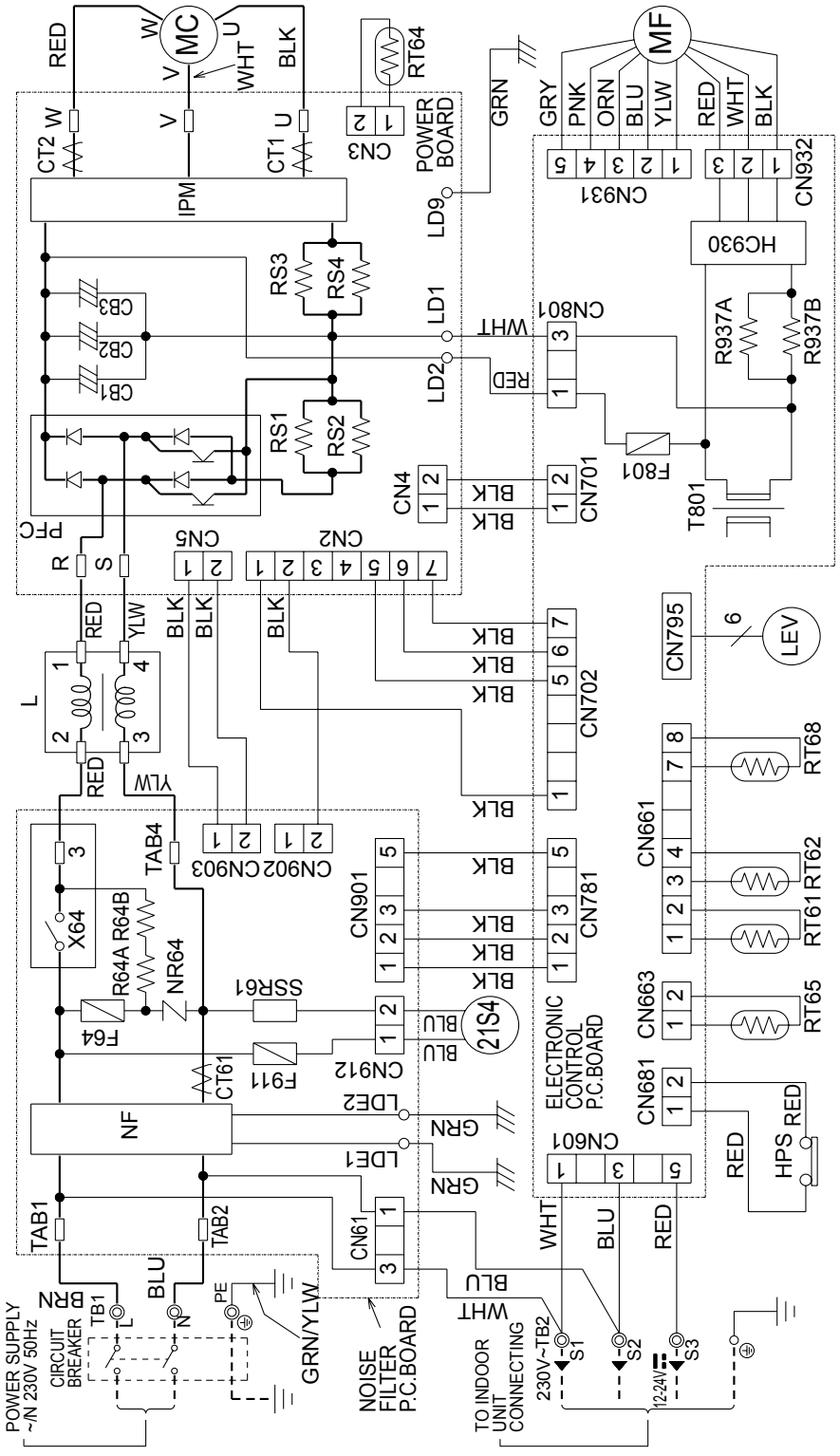


SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CB1~3	SMOOTHING CAPACITOR	LEV	EXPANSION VALVE	RT65	AMBIENT TEMP. THERMISTOR
CT1, 2	CURRENT TRANSFORMER	MC	COMPRESSOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
CT61	CURRENT TRANSFORMER	MF	FAN MOTOR	R64A, B	RESISTOR
F64	FUSE (T2AL 250V)	NF	NOISE FILTER	R937A, B	RESISTOR
F801	FUSE (T3.15AL 250V)	NR64	VARISTOR	SSR61	SOLENOID COIL RELAY
F911	FUSE (T1AL 250V)	PFC	POWER FACTOR CONTROLLER	TB1	TERMINAL BLOCK
HC930	INTELLIGENT POWER MODULE	RS1~4	RESISTOR	TB2	TERMINAL BLOCK
HPS	HIGH PRESSURE SWITCH	RT61	DEFROST THERMISTOR	T801	TRANSFORMER
IPM	INTELLIGENT POWER MODULE	RT62	DISCHARGE TEMP. THERMISTOR	X64	RELAY
L	REACTOR	RT64	FIN TEMP. THERMISTOR	21S4	REVERSING VALVE COIL

NOTES: 1. About the indoor side electric wiring refer to the indoor unit electric wiring diagram for servicing.
2. Use copper conductors only (for field wiring).
3. Symbols below indicate.
□□□ :Terminal block

SUZ-KA71VA.TH SUZ-KA71VA1.TH

OUTDOOR UNIT



NOTES: 1. About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2. Use copper conductors only (for field wiring).
3. Symbols below indicate.
◎:Terminal block □□□:Connector

SYMBOL	NAME
CB1~3	SMOOTHING CAPACITOR
CT1, 2	CURRENT TRANSFORMER
CT61	CURRENT TRANSFORMER
F64	FUSE (T2AL 250V)
F801	FUSE (T3.15AL 250V)
F911	FUSE (T1AL 250V)
HC930	INTELLIGENT POWER MODULE
HPS	HIGH PRESSURE SWITCH
IPM	INTELLIGENT POWER MODULE
L	REACTOR
LEV	EXPANSION VALVE COIL

SYMBOL	NAME
MC	COMPRESSOR
MF	OUTDOOR FAN MOTOR
NF	NOISE FILTER
NR64	VARISTOR
PFC	POWER FACTOR CONTROLLER
R64A,B	RESISTOR
R937A, B	RESISTOR
RS1~4	RESISTOR
RT61	DEFROST THERMISTOR
RT62	DISCHARGE TEMPERATURE THERMISTOR
RT64	FIN TEMPERATURE THERMISTOR

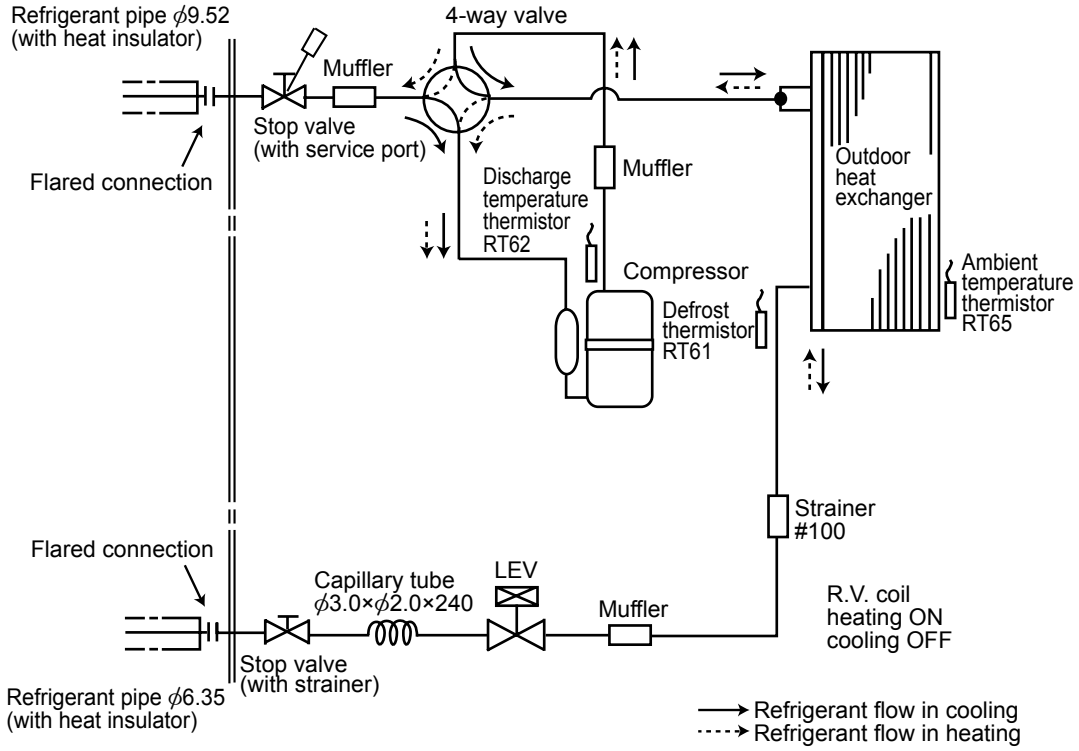
SYMBOL	NAME
RT65	AMBIENT TEMPERATURE THERMISTOR
RT68	OUTDOOR HEAT EXCHANGER TEMPERATURE THERMISTOR
SSR61	SOLENOID COIL RELAY
T801	TRANSFORMER
TB1	TERMINAL BLOCK
TB2	TERMINAL BLOCK
X64	RELAY
21S4	REVERSING VALVE COIL

8 REFRIGERANT SYSTEM DIAGRAM

SUZ-KA25VA.TH
SUZ-KA25VAH.TH

OUTDOOR UNIT

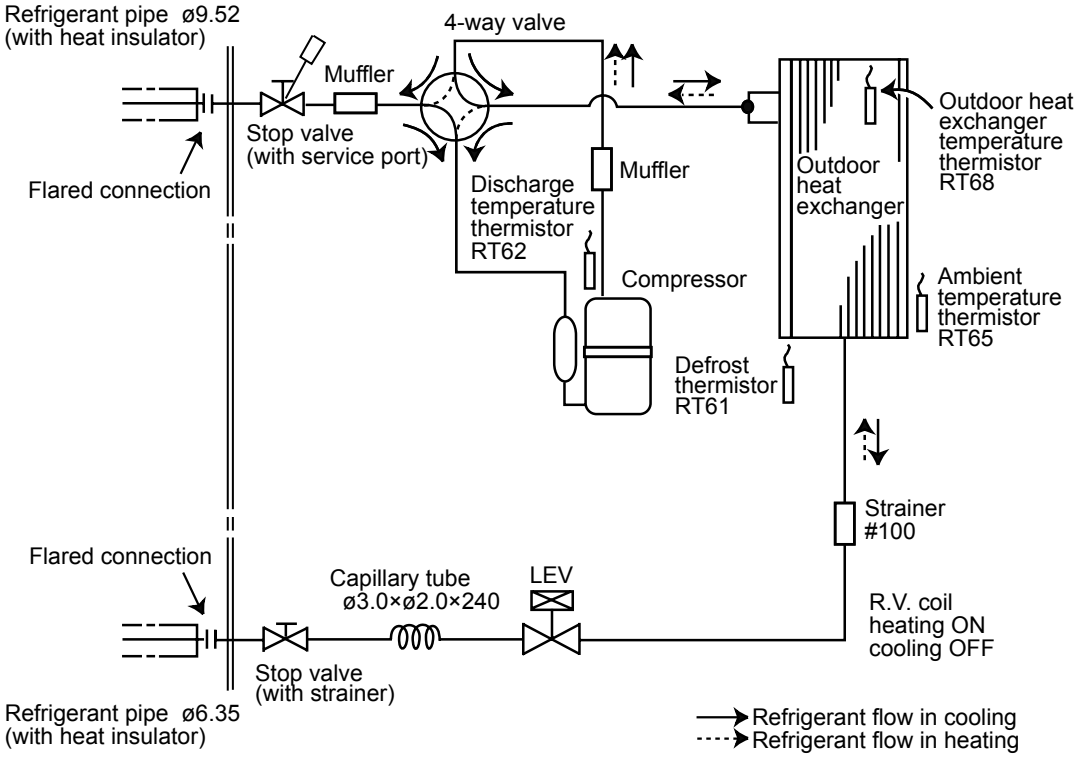
Unit: mm



Unit: mm

SUZ-KA25VAR1.TH
SUZ-KA25VAHR1.TH

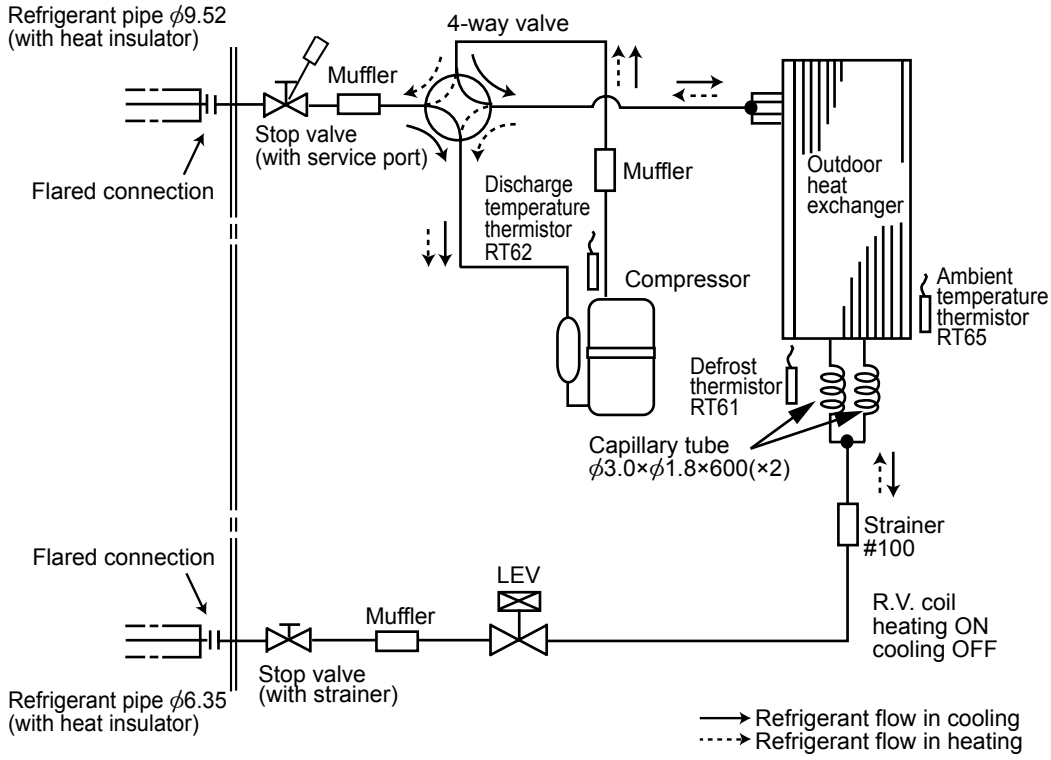
OUTDOOR UNIT



SUZ-KA35VA.TH
SUZ-KA35VAH.TH

Unit: mm

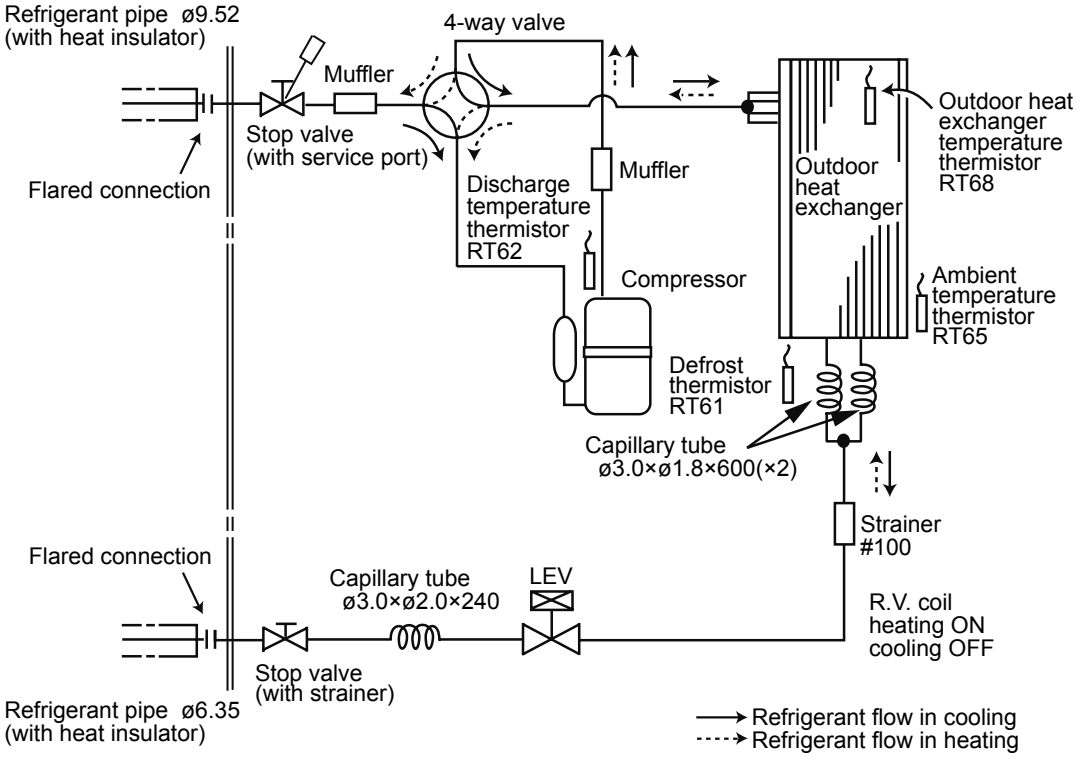
OUTDOOR UNIT



SUZ-KA35VAR1.TH
SUZ-KA35VAHR1.TH

Unit: mm

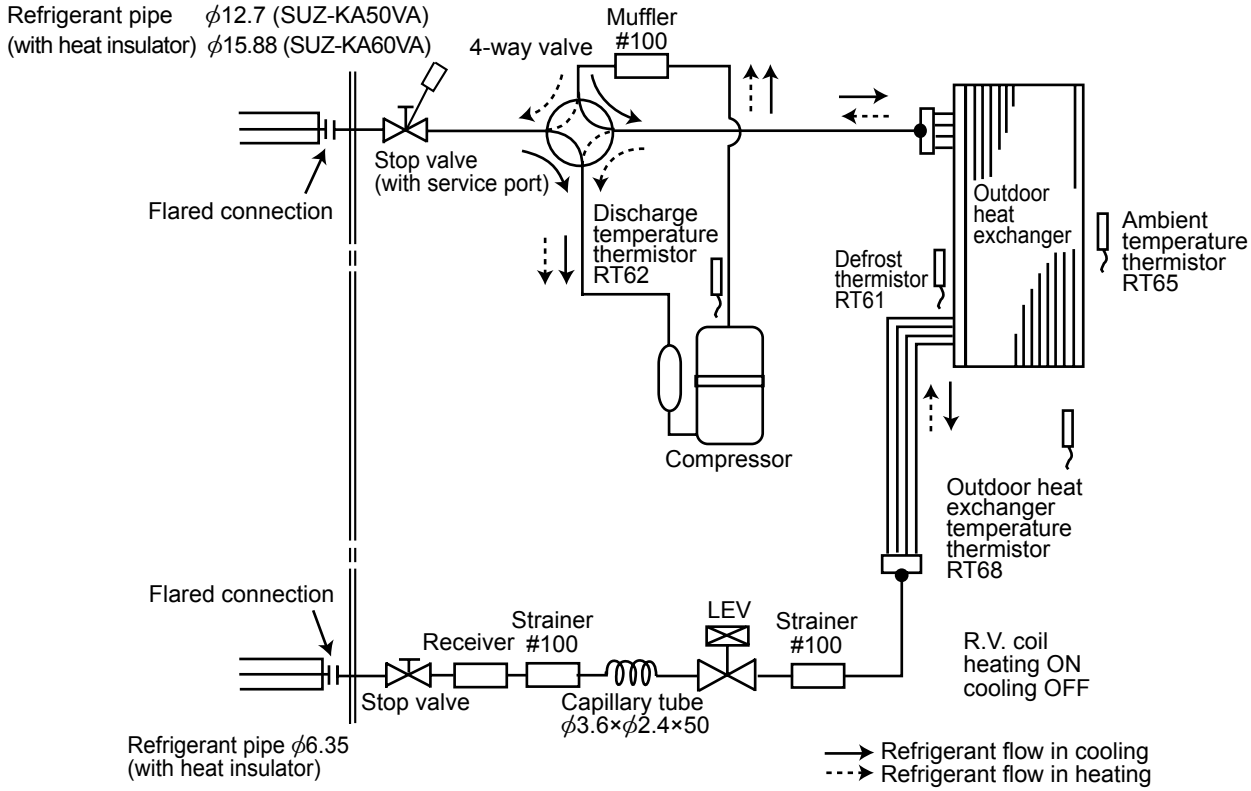
OUTDOOR UNIT



SUZ-KA50VA.TH SUZ-KA50VA1.TH
SUZ-KA60VA.TH SUZ-KA60VA1.TH

Unit: mm

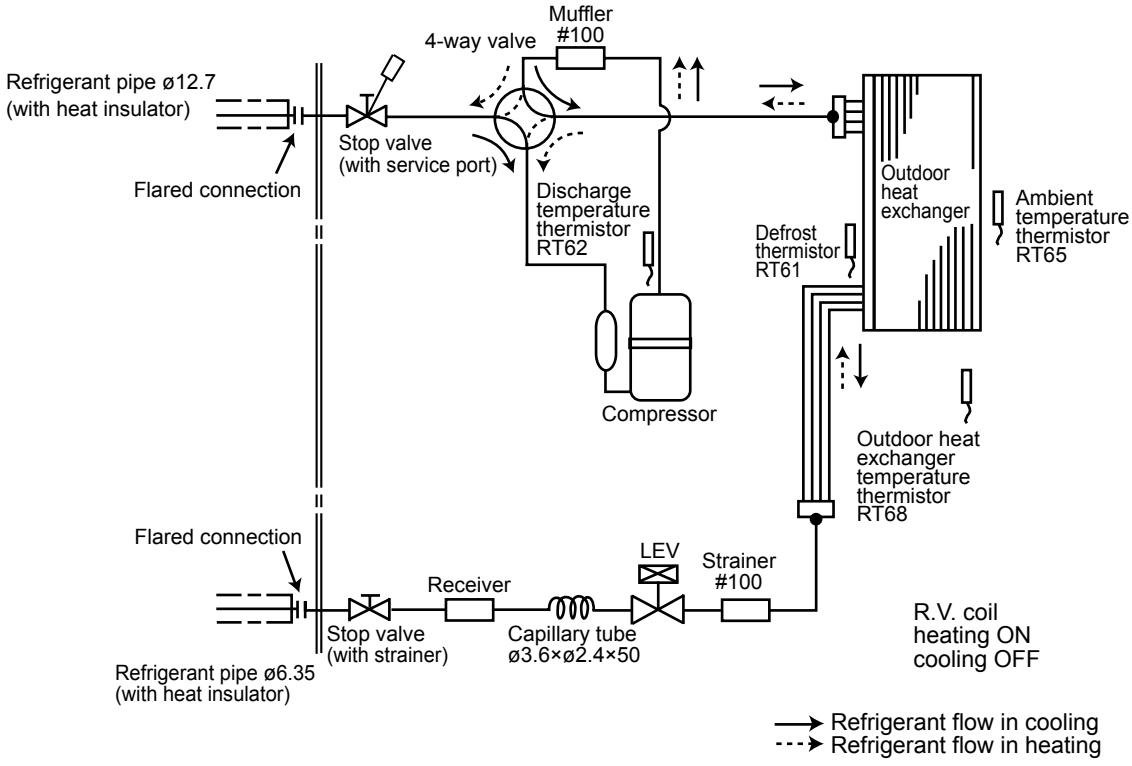
OUTDOOR UNIT



SUZ-KA50VAR2.TH

OUTDOOR UNIT

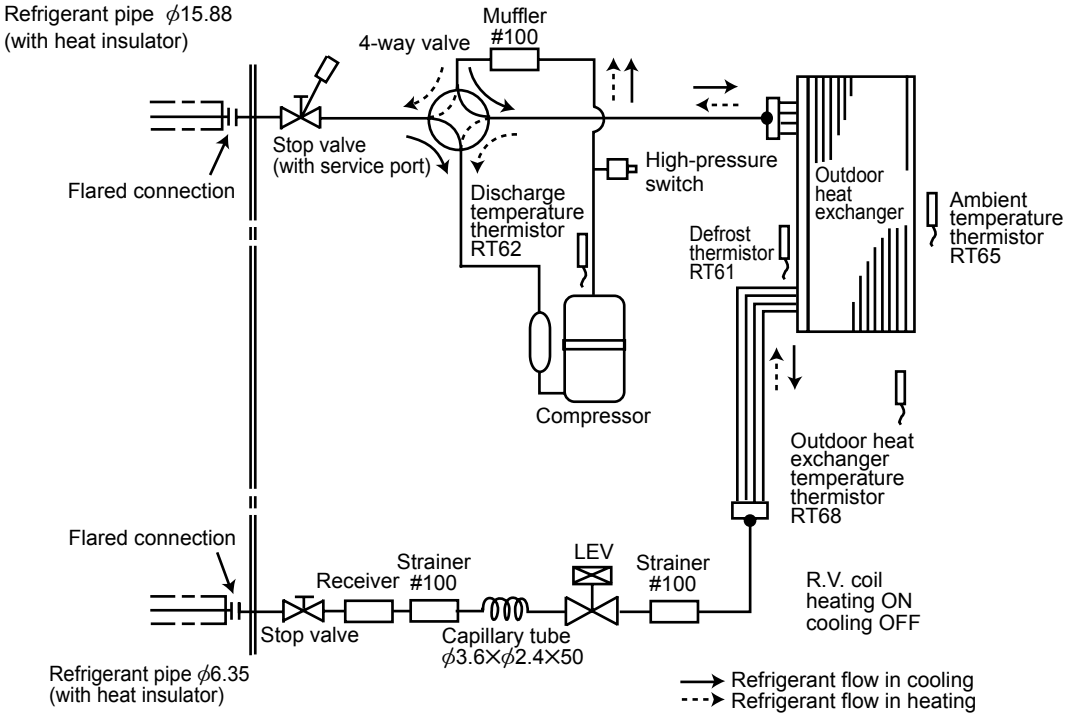
Unit: mm



SUZ-KA60VAR2.TH

Unit:mm

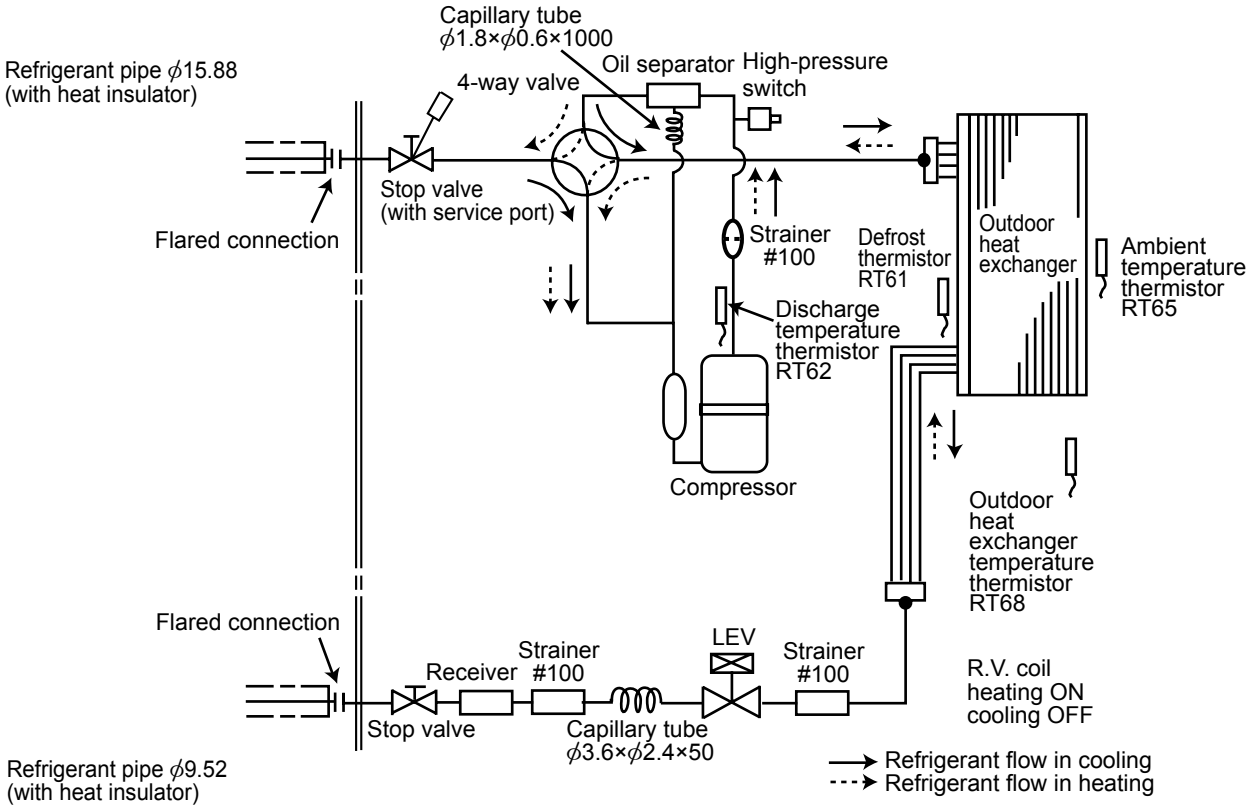
OUTDOOR UNIT



Unit:mm

SUZ-KA71VA.TH SUZ-KA71VA1.TH

OUTDOOR UNIT

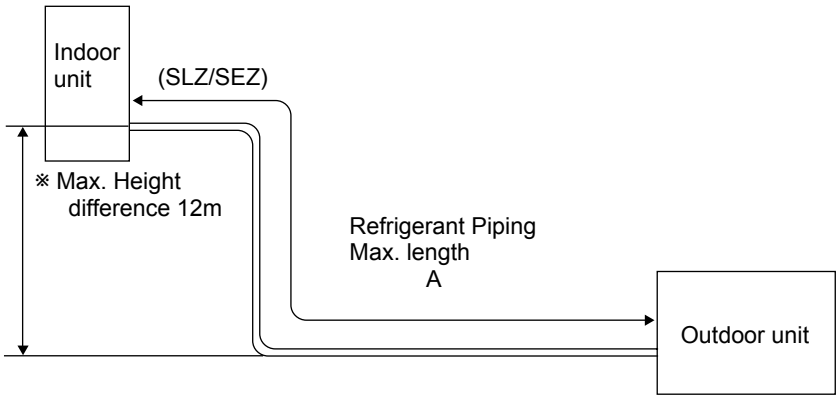


SUZ-KA25VA.TH SUZ-KA25VAH.TH SUZ-KA25VAR1.TH SUZ-KA25VAHR1.TH
SUZ-KA35VA.TH SUZ-KA35VAH.TH SUZ-KA35VAR1.TH SUZ-KA35VAHR1.TH

MAX. REFRIGERANT PIPING LENGTH

Models	Refrigerant piping Max. length: m A	Piping size O.D: mm	
		Gas	Liquid
SUZ-KA25VA.TH **SUZ-KA35VA.TH** **SUZ-KA25VAH.TH** **SUZ-KA35VAH.TH** **SUZ-KA25VAR1.TH** **SUZ-KA35VAR1.TH** **SUZ-KA25VAHR1.TH** **SUZ-KA35VAHR1.TH**	20	9.52	6.35

MAX. HEIGHT DIFFERENCE



※ Height difference should be within 12m regardless of which unit, indoor or outdoor position is high.

ADDITIONAL REFRIGERANT CHARGE (R410A: g)

Models	Outdoor unit precharged	Refrigerant piping length (one way)											
		5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	20m
SUZ-KA25VA.TH **SUZ-KA25VAH.TH**	900	0	0	0	90	120	150	180	210	240	270	300	450
SUZ-KA25VAR1.TH **SUZ-KA25VAHR1.TH**	800												
SUZ-KA35VA.TH **SUZ-KA35VAH.TH** **SUZ-KA35VAR1.TH** **SUZ-KA35VAHR1.TH**	1,050	0	0	0	90	120	150	180	210	240	270	300	450

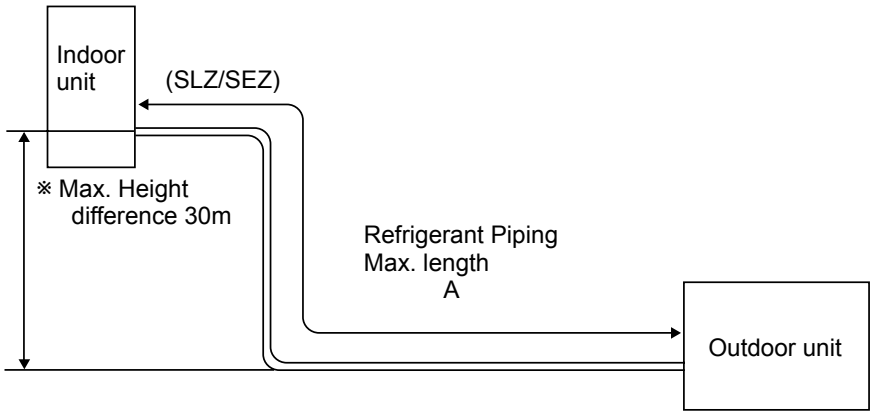
Calculation : Xg=30g/m×(Refrigerant piping length(m) - 5)

SUZ-KA50VA.TH SUZ-KA50VA1.TH SUZ-KA50VAR2.TH
SUZ-KA60VA.TH SUZ-KA60VA1.TH SUZ-KA60VAR2.TH
SUZ-KA71VA.TH SUZ-KA71VA1.TH

MAX. REFRIGERANT PIPING LENGTH

Model	Refrigerant piping Max. length: m A	Piping size O.D: mm	
		Gas	Liquid
SUZ-KA50VA.TH SUZ-KA50VA1.TH SUZ-KA50VAR2.TH	30	12.7	6.35
SUZ-KA60VA.TH SUZ-KA60VA1.TH SUZ-KA60VAR2.TH		15.88	
SUZ-KA71VA.TH SUZ-KA71VA1.TH			9.52

MAX. HEIGHT DIFFERENCE



※ Height difference should be within 30m regardless of which unit, indoor or outdoor position is high.
Max. Height difference of SUZ-KA50/60/71VA.TH : 15m
SUZ-KA50/60/71VA1.TH : 30m
SUZ-KA50/60VAR2.TH : 30m

ADDITIONAL REFRIGERANT CHARGE (R410A: g)

Model	Outdoor unit precharged	Refrigerant piping length (one way)					
		7m	10m	15m	20m	25m	30m
SUZ-KA50VA.TH SUZ-KA50VA1.TH SUZ-KA50VAR2.TH	1,600	0	60	160	260	360	460
SUZ-KA60VA.TH SUZ-KA60VA1.TH SUZ-KA60VAR2.TH	1,800	0	60	160	260	360	460

Calculation : Xg=20g/m × (Refrigerant piping length(m)–7)

Model	Outdoor unit precharged	Refrigerant piping length (one way)					
		7m	10m	15m	20m	25m	30m
SUZ-KA71VA.TH SUZ-KA71VA1.TH	2,000	0	165	440	715	990	1,265

Calculation : Xg=55g/m × (Refrigerant piping length(m)-7)

9 PERFORMANCE CURVES

Model

- **SLZ-KA25VA(L)/SUZ-KA25VA**
- **SLZ-KA35VA(L)/SUZ-KA35VA**
- **SLZ-KA50VA(L)/SUZ-KA50VA**

The standard data contained in these specifications applies only to the operation of the air conditioner under normal condition. Operating conditions vary according to the areas where these units are installed. The following information has been provided to clarify the operating characteristics of the air conditioner under the conditions indicated by the performance curve.

(1) GUARANTEED VOLTAGE

Rated voltage: ±10% (207~253V), 50Hz

(2) AIR FLOW

Air flow should be set at MAX.

(3) MAIN READINGS

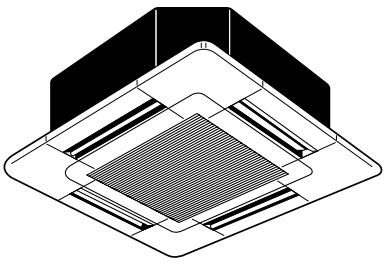
COOLING	HEATING
(1) Indoor intake air wet-bulb temperature: W.B. ˚C	(1) Indoor intake air dry-bulb temperature: D.B. ˚C
(2) Indoor outlet air wet-bulb temperature: W.B. ˚C	(2) Indoor outlet air dry-bulb temperature: D.B. ˚C
(3) Outdoor intake air dry-bulb temperature: D.B. ˚C	(3) Outdoor intake air wet-bulb temperature: W.B. ˚C
(4) Total input: W	(4) Total input: W

Indoor air wet/dry-bulb temperature difference on the side of the chart on page shows the difference between the indoor intake air wet/dry-bulb temperature and the indoor outlet air wet/dry-bulb temperature for your reference at service.

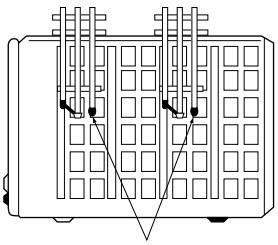
How to measure the indoor air wet-bulb/dry-bulb temperature difference

1. Attach at least 2 sets of wet-and-dry-bulb thermometers to the indoor air inlet as shown in the figure, and at least 2 sets of wet-and-dry-bulb thermometers to the indoor air outlet. The thermometers must be attached to the position where air speed is high.
2. Attach at least 2 sets of wet-and-dry-bulb thermometers to the outdoor air inlet. Cover the thermometers to prevent direct rays of the sun.
3. Check that the air filter is cleaned.
4. Open windows and doors of the room.
5. Press the EMERGENCY OPERATION switch once to start the EMERGENCY COOL (HEAT) MODE.
6. When system stabilizes after more than 15 minutes, measure temperature and take an average temperature.
7. 10 minutes later, measure temperature again and check that the temperature does not change.

INDOOR UNIT

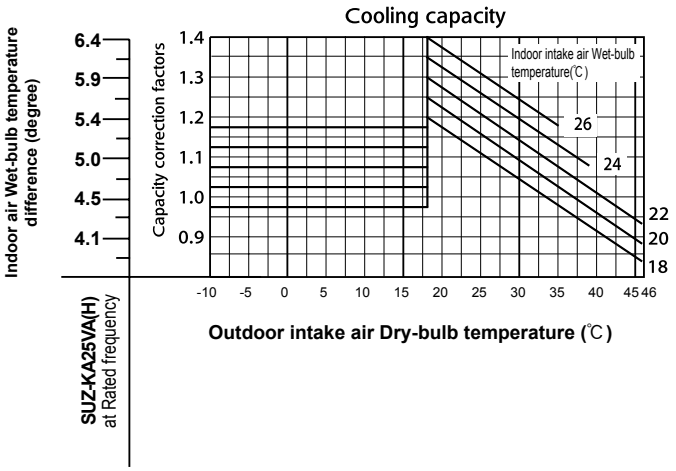


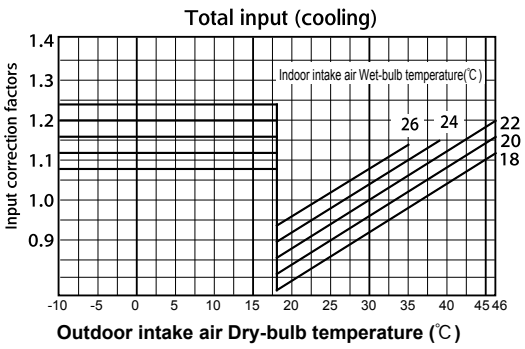
OUTDOOR UNIT

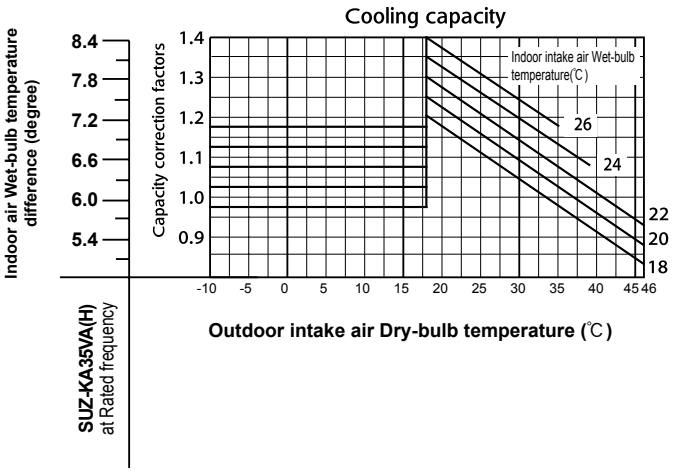


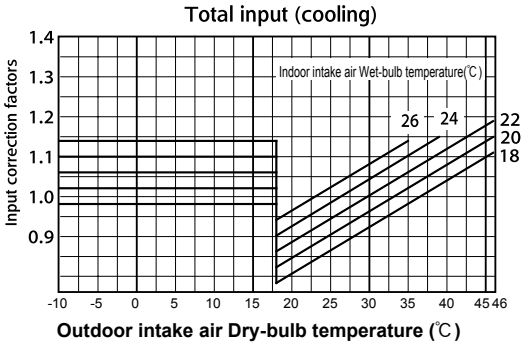
Wet-and dry-bulb thermometers

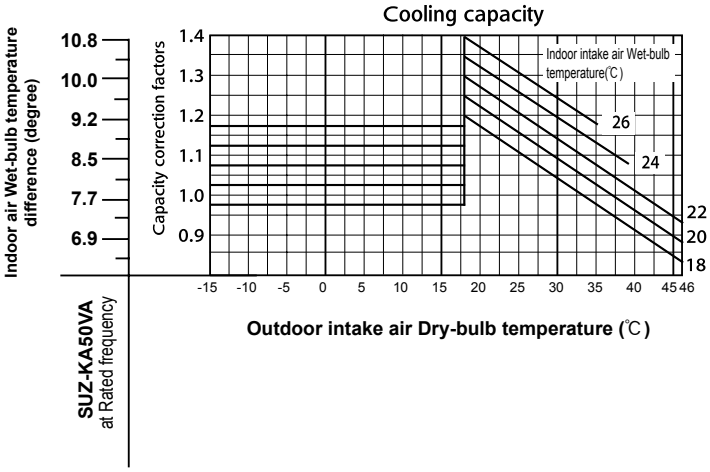
BACK VIEW

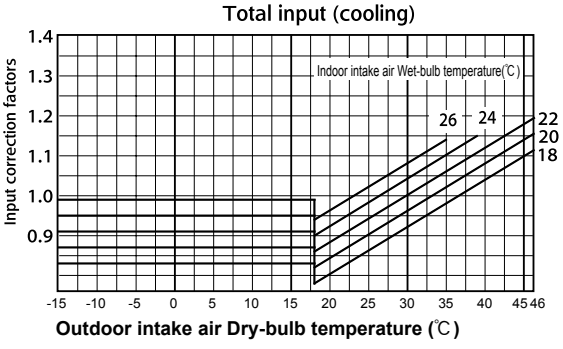

Cooling capacity
Indoor air Wet-bulb temperature difference (degree)
6.4
5.9
5.4
5.0
4.5
4.1
Capacity correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)
SUZ-KA25VA(H)
at Rated frequency

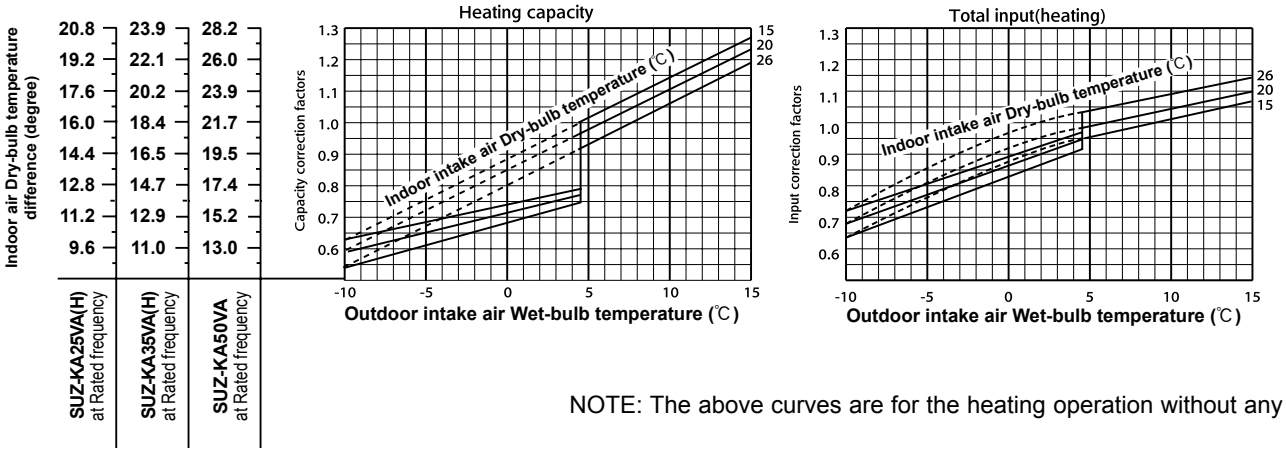

Total input (cooling)
Input correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)


Cooling capacity
Indoor air Wet-bulb temperature difference (degree)
8.4
7.8
7.2
6.6
6.0
5.4
Capacity correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)
SUZ-KA35VA(H)
at Rated frequency

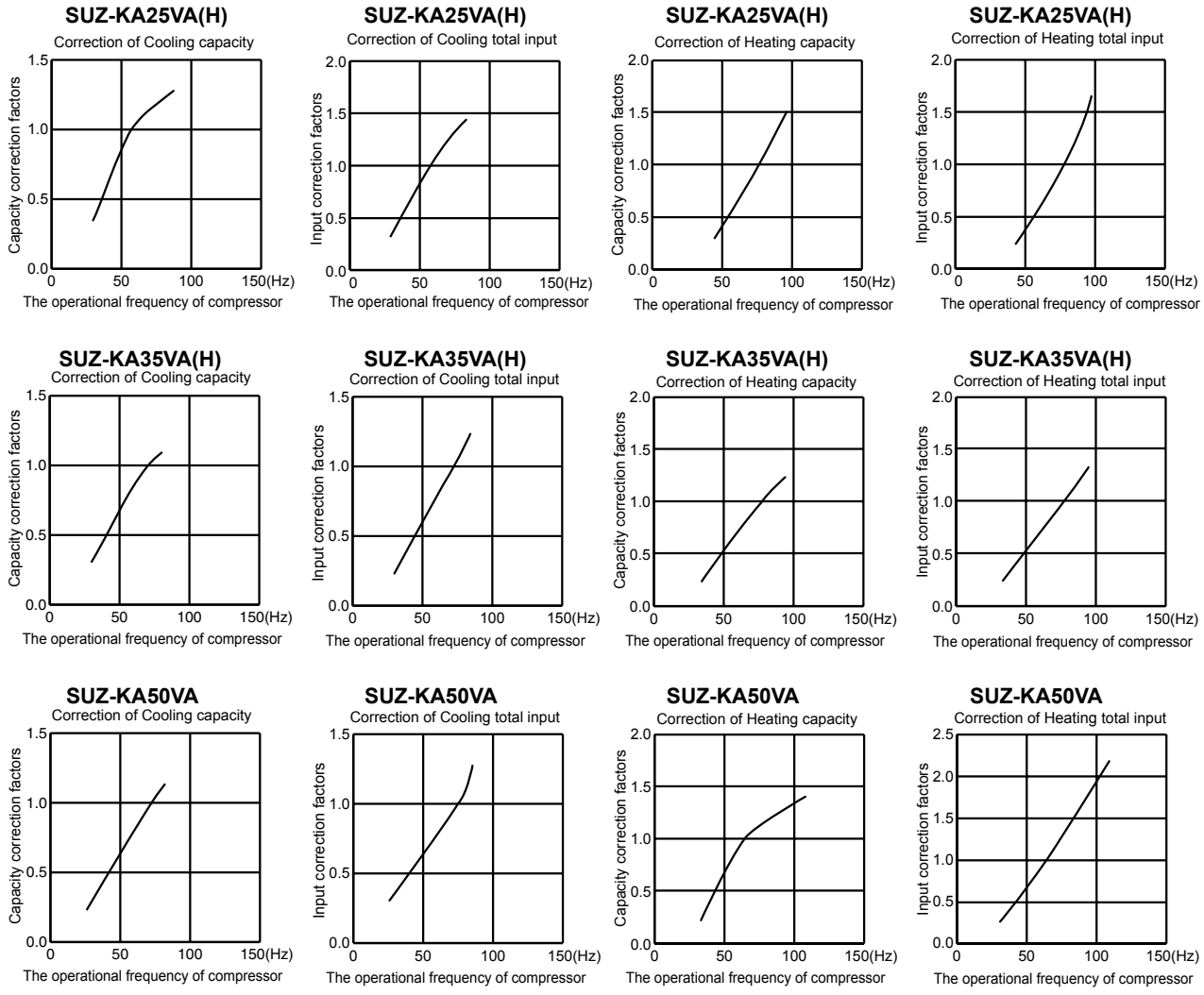

Total input (cooling)
Input correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)


Cooling capacity
Indoor air Wet-bulb temperature difference (degree)
10.8
10.0
9.2
8.5
7.7
6.9
Capacity correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-15 -10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)
SUZ-KA50VA
at Rated frequency


Total input (cooling)
Input correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-15 -10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)



NOTE: The above curves are for the heating operation without any frost.



OUTDOOR LOW PRESSURE AND OUTDOOR UNIT CURRENT

<How to operate fixed-frequency operation (Test run operation)>

1. Press the EMERGENCY OPERATION switch or the Test button to COOL or HEAT mode.
2. Test run operation starts and continues to operate for 30 minutes.
3. Compressor starts at rated frequency in COOL mode or 58Hz in HEAT mode.
4. Indoor fan operates at High speed.
5. After 30 minutes, test run operation finishes and EMERGENCY OPERATION starts.
6. To cancel test run operation (EMERGENCY OPERATION), press the EMERGENCY OPERATION switch or the ON/OFF button on remote controller.

NOTE : The unit of pressure has been changed to MPa on the international system of units (SI unit system).
The conversion factor is: **1 (MPa [Gauge]) =10.2 (kgf/cm² [Gauge])**

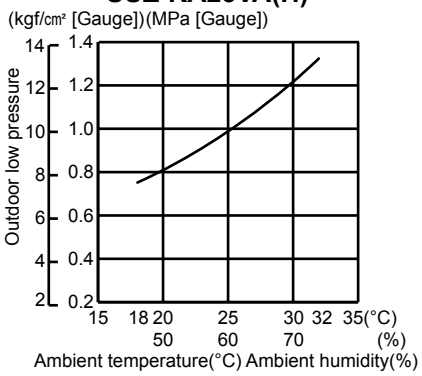
OUTDOOR LOW PRESSURE AND OUTDOOR UNIT CURRENT

COOL operation

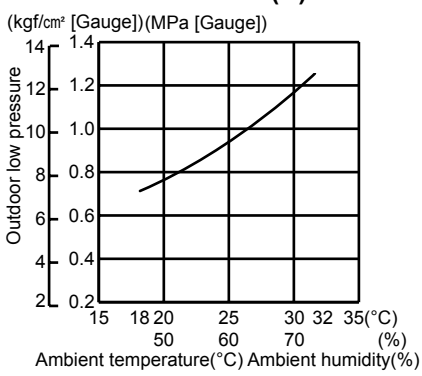
① Both indoor and outdoor units are under the same temperature/humidity condition.
② Air flow : High speed
③ Operation: TEST RUN OPERATION

Dry-bulb temperature	Relative humidity(%)
20	50
25	60
30	70

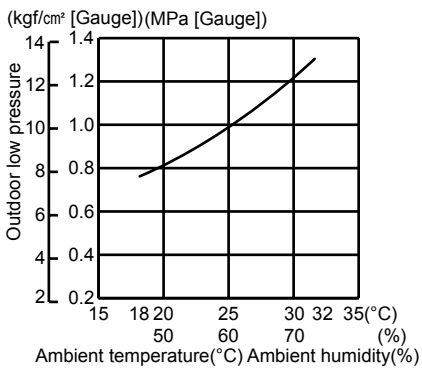
SUZ-KA25VA(H)


(kgf/cm² [Gauge])(MPa [Gauge])
Outdoor low pressure
14 12 10 8 6 4 2
1.4 1.2 1.0 0.8 0.6 0.4 0.2
15 18 20 25 30 32 35(°C)
50 60 70 (%)
Ambient temperature(°C) Ambient humidity(%)

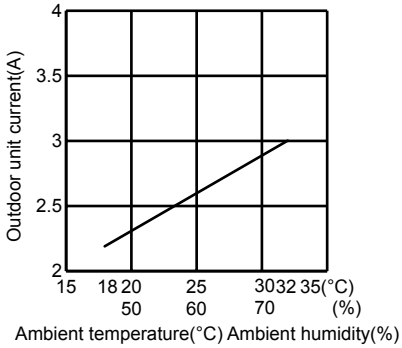
SUZ-KA35VA(H)


(kgf/cm² [Gauge])(MPa [Gauge])
Outdoor low pressure
14 12 10 8 6 4 2
1.4 1.2 1.0 0.8 0.6 0.4 0.2
15 18 20 25 30 32 35(°C)
50 60 70 (%)
Ambient temperature(°C) Ambient humidity(%)

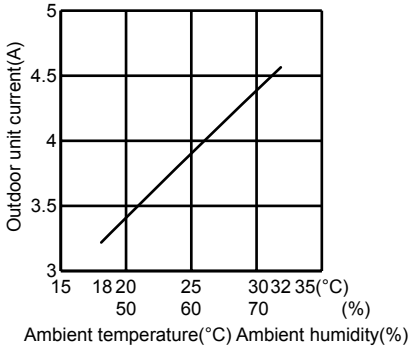
SUZ-KA50VA


(kgf/cm² [Gauge])(MPa [Gauge])
Outdoor low pressure
14 12 10 8 6 4 2
1.4 1.2 1.0 0.8 0.6 0.4 0.2
15 18 20 25 30 32 35(°C)
50 60 70 (%)
Ambient temperature(°C) Ambient humidity(%)

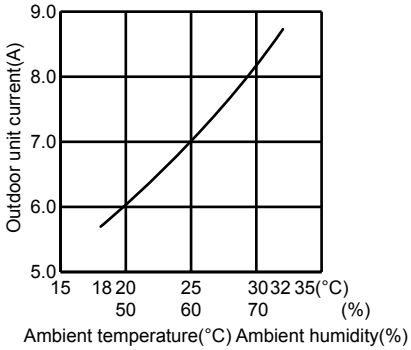
SUZ-KA25VA(H)



SUZ-KA35VA(H)



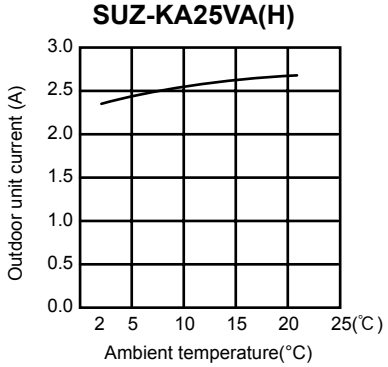
SUZ-KA50VA



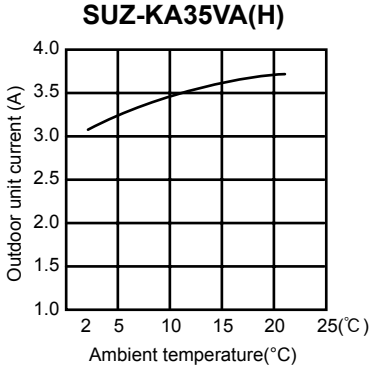
HEAT operation

Condition indoor: Dry bulb temperature 20.0°C
Wet bulb temperature 14.5°C
Condition outdoor: Dry bulb temperature 2,7,15,20.0°C
Wet bulb temperature 1,6,12,14.5°C

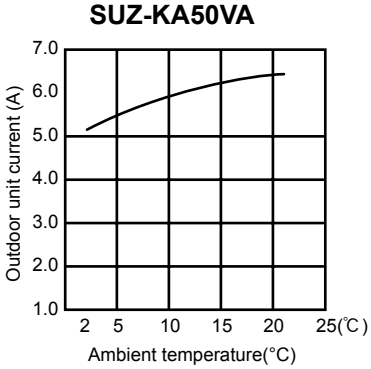
SUZ-KA25VA(H)



SUZ-KA35VA(H)



SUZ-KA50VA



Model

- **SEZ-KC25VA/SUZ-KA25VA**
- **SEZ-KA35VA/SUZ-KA35VA**
- **SEZ-KA50VA/SUZ-KA50VA**
- **SEZ-KA60VA/SUZ-KA60VA**
- **SEZ-KA71VA/SUZ-KA71VA**

The standard data contained in these specifications applies only to the operation of the air conditioner under normal condition. Operating conditions vary according to the areas where these units are installed. The following information has been provided to clarify the operating characteristics of the air conditioner under the conditions indicated by the performance curve.

(1) GUARANTEED VOLTAGE

Rated voltage: ±10% (207~253V), 50Hz

(2) AIR FLOW

Air flow should be set at MAX.

(3) MAIN READINGS

COOLING

(1) Indoor intake air wet-bulb temperature: W.B.˚C
(2) Indoor outlet air wet-bulb temperature: W.B.˚C
(3) Outdoor intake air dry-bulb temperature: D.B.˚C
(4) Total input: W

HEATING

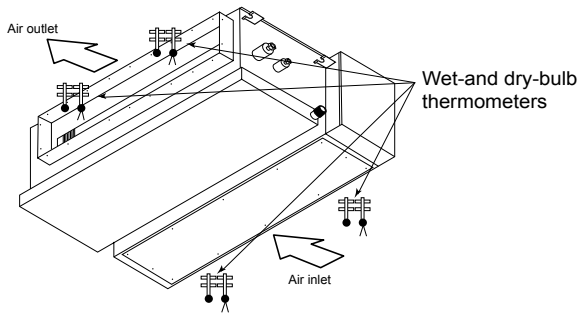
(1) Indoor intake air dry-bulb temperature: D.B.˚C
(2) Indoor outlet air dry-bulb temperature: D.B.˚C
(3) Outdoor intake air wet-bulb temperature: W.B.˚C
(4) Total input: W

Indoor air wet/dry-bulb temperature difference on the side of the chart on page shows the difference between the indoor intake air wet/dry-bulb temperature and the indoor outlet air wet/dry-bulb temperature for your reference at service.

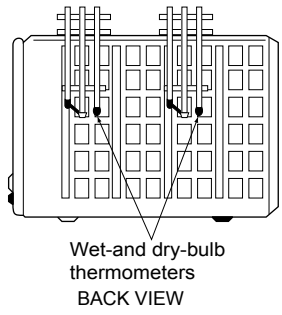
How to measure the indoor air wet-bulb/dry-bulb temperature difference

1. Attach at least 2 sets of wet-and-dry-bulb thermometers to the indoor air inlet as shown in the figure, and at least 2 sets of wet-and-dry-bulb thermometers to the indoor air outlet. The thermometers must be attached to the position where air speed is high.
2. Attach at least 2 sets of wet-and-dry-bulb thermometers to the outdoor air inlet. Cover the thermometers to prevent direct rays of the sun.
3. Check that the air filter is cleaned.
4. Open windows and doors of the room.
5. Press the TEST button twice to start the COOL (HEAT) MODE.
6. When system stabilizes after more than 15 minutes, measure temperature and take an average temperature.
7. 10 minutes later, measure temperature again and check that the temperature does not change.

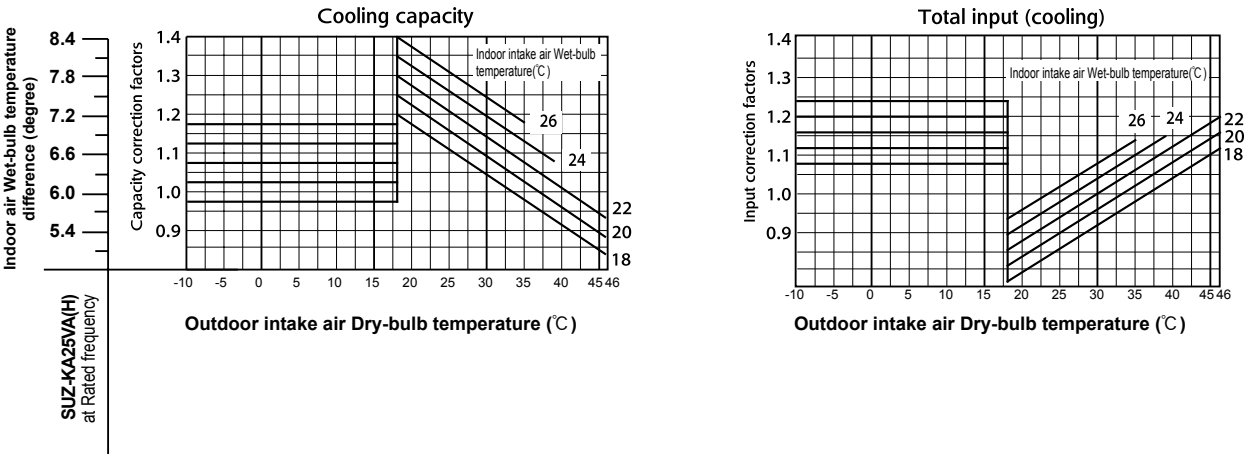
INDOOR UNIT

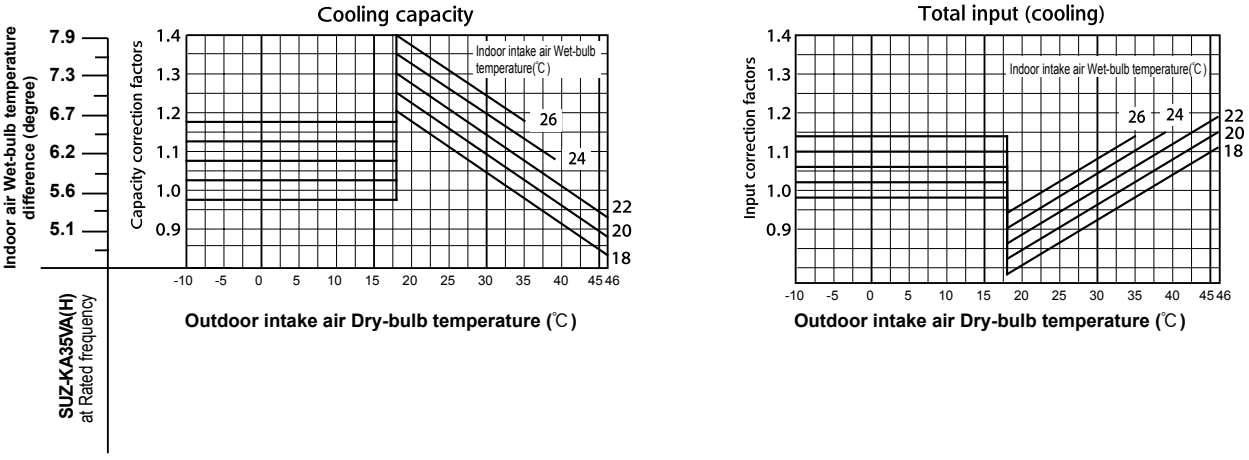


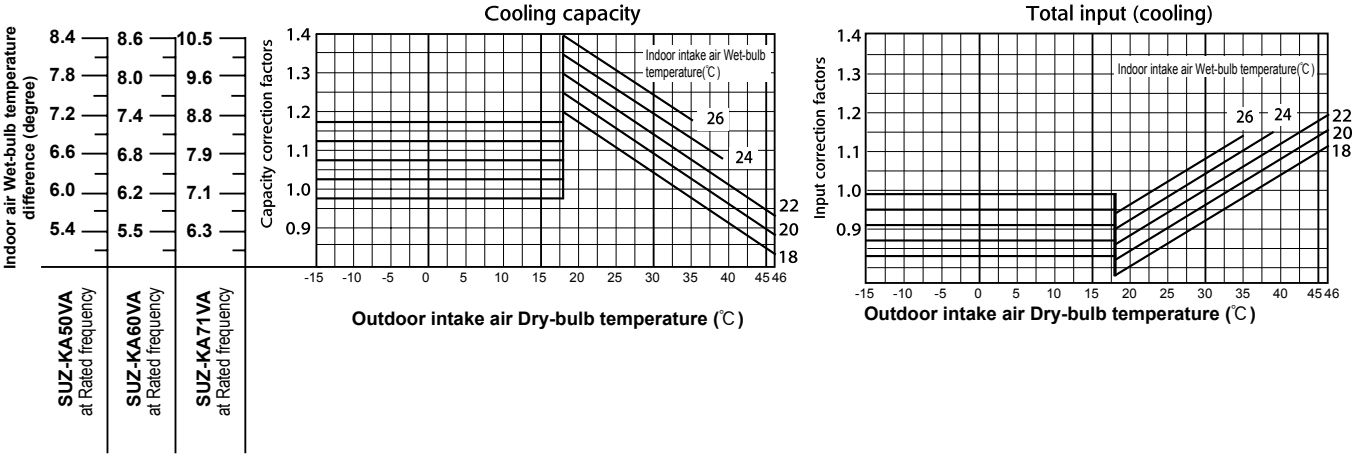
OUTDOOR UNIT

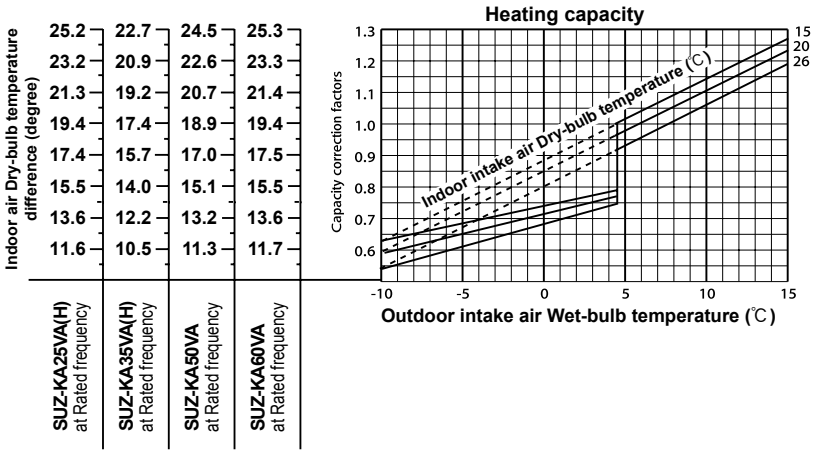


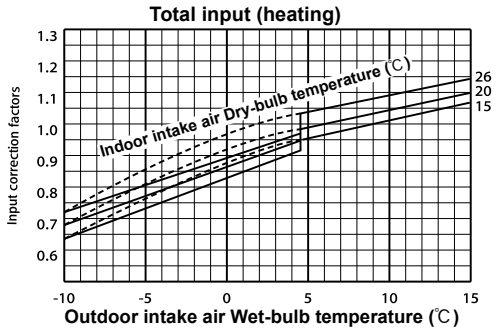
※ The picture is SEZ-KA35, 50, 60, 71VA.
SEZ-KC25VA is similar to SEZ-KA35, 50, 60, 71VA.

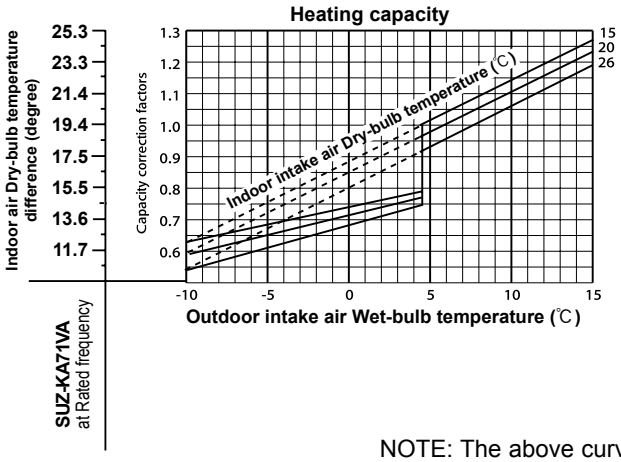

Cooling capacity
Indoor air Wet-bulb temperature difference (degree)
8.4
7.8
7.2
6.6
6.0
5.4
Capacity correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)
SUZ-KA25VA(H)
at Rated frequency
Total input (cooling)
Input correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)

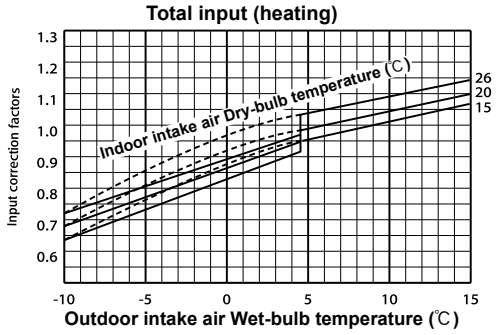

Cooling capacity
Indoor air Wet-bulb temperature difference (degree)
7.9
7.3
6.7
6.2
5.6
5.1
Capacity correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)
SUZ-KA35VA(H)
at Rated frequency
Total input (cooling)
Input correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)


Cooling capacity
Indoor air Wet-bulb temperature difference (degree)
8.4
7.8
7.2
6.6
6.0
5.4
8.6
8.0
7.4
6.8
6.2
5.5
10.5
9.6
8.8
7.9
7.1
6.3
Capacity correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-15 -10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)
SUZ-KA50VA
at Rated frequency
SUZ-KA60VA
at Rated frequency
SUZ-KA71VA
at Rated frequency
Total input (cooling)
Input correction factors
1.4
1.3
1.2
1.1
1.0
0.9
Indoor intake air Wet-bulb temperature(℃)
26
24
22
20
18
-15 -10 -5 0 5 10 15 20 25 30 35 40 45 46
Outdoor intake air Dry-bulb temperature (℃)





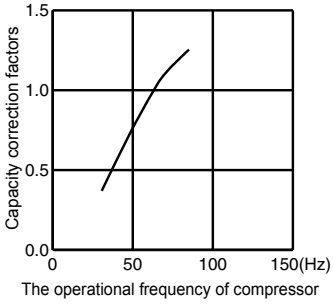




NOTE: The above curves are for the heating operation without any frost.

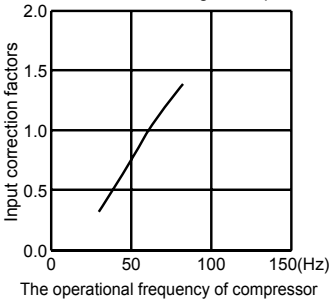
SUZ-KA25VA(H)

Correction of Cooling capacity



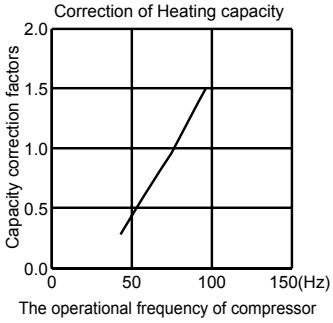
SUZ-KA25VA(H)

Correction of Cooling total input



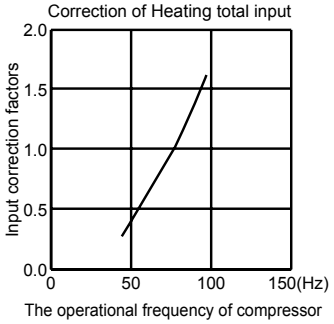
SUZ-KA25VA(H)

Correction of Heating capacity



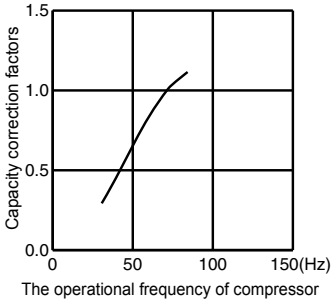
SUZ-KA25VA(H)

Correction of Heating total input



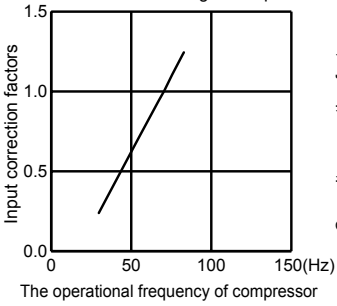
SUZ-KA35VA(H)

Correction of Cooling capacity



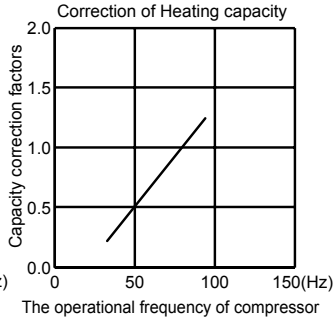
SUZ-KA35VA(H)

Correction of Cooling total input



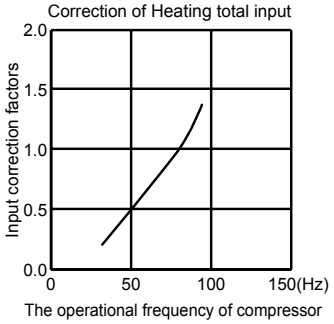
SUZ-KA35VA(H)

Correction of Heating capacity



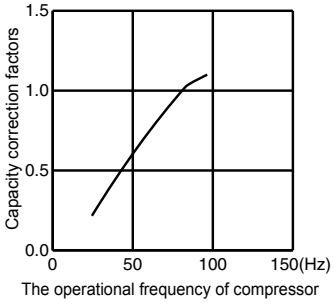
SUZ-KA35VA(H)

Correction of Heating total input



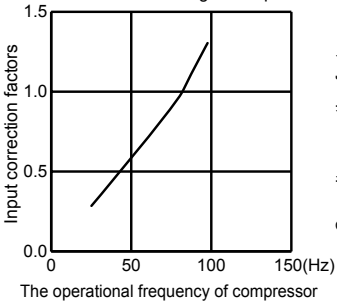
SUZ-KA50VA

Correction of Cooling capacity



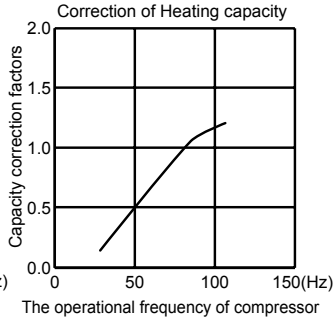
SUZ-KA50VA

Correction of Cooling total input



SUZ-KA50VA

Correction of Heating capacity



SUZ-KA50VA

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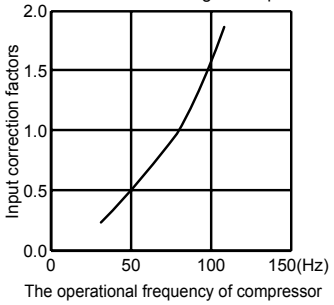
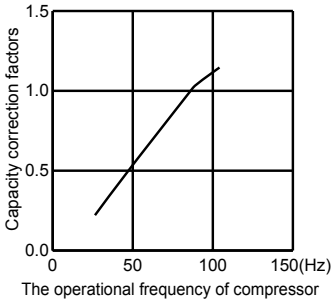


SUZ-KA60VA

Correction of Cooling capacity



SUZ-KA60VA

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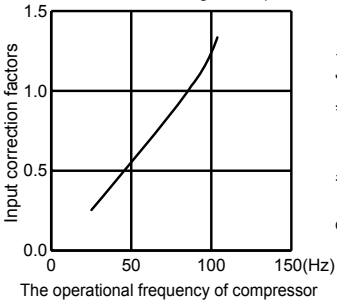
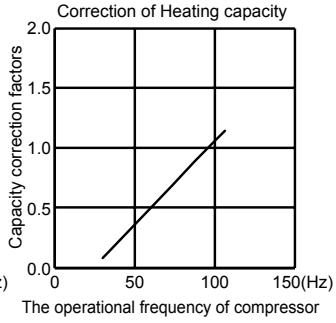


SUZ-KA60VA

Correction of Heating capacity



SUZ-KA60VA

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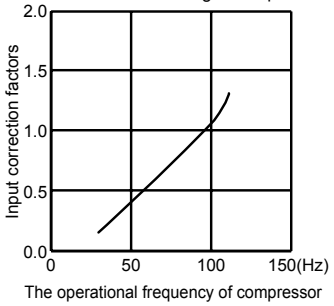

SUZ-KA71VA

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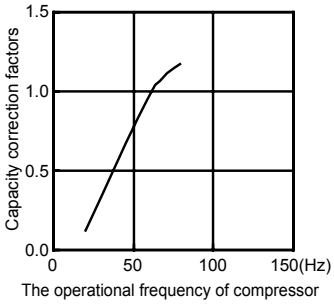
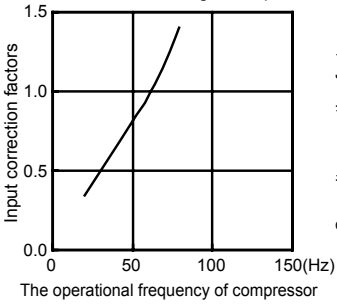


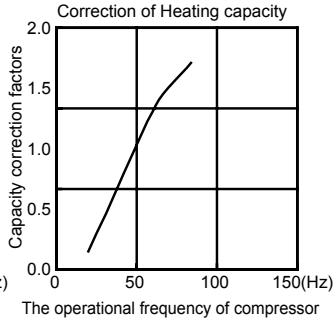
SUZ-KA71VA

Correction of Cooling total input



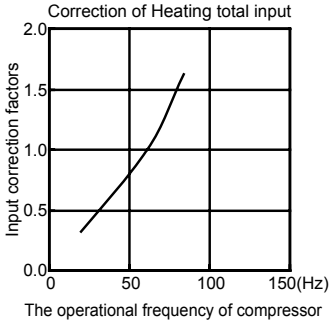
SUZ-KA71VA

Correction of Heating capacity



SUZ-KA71VA

Correction of Heating total input



OUTDOOR LOW PRESSURE AND OUTDOOR UNIT CURRENT

<How to operate fixed-frequency operation (Test run operation)>

1. Press the TEST button to COOL or HEAT mode.
2. Test run operation starts and continues to operate for 30 minutes.
3. Compressor starts at rated frequency in COOL mode or 58Hz in HEAT mode.
4. Indoor fan operates at High speed.
5. After 30 minutes, test run operation finishes and EMERGENCY OPERATION starts.
6. To cancel test run operation (EMERGENCY OPERATION), press the ON/OFF button on remote controller.

NOTE : The unit of pressure has been changed to MPa on the international system of units (SI unit system).
The conversion factor is: **1 (MPa [Gauge]) =10.2 (kgf/cm² [Gauge])**

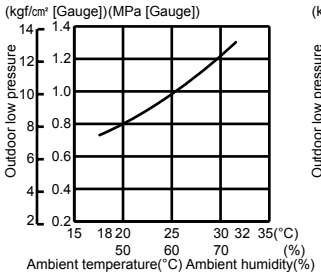
OUTDOOR LOW PRESSURE AND OUTDOOR UNIT CURRENT

COOL operation

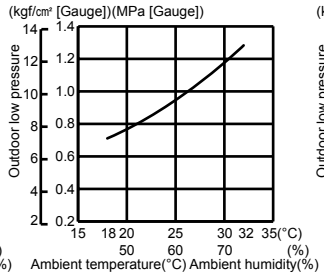
① Both indoor and outdoor units are under the same temperature/humidity condition.
② Air flow : High speed
③ Operation: TEST RUN OPERATION

Dry-bulb temperature	Relative humidity(%)
20	50
25	60
30	70

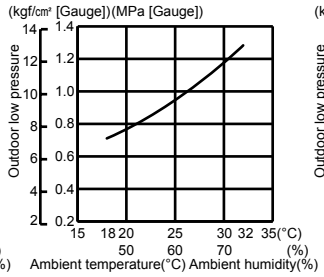
SUZ-KA25VA(H)



SUZ-KA35VA(H)



SUZ-KA50VA



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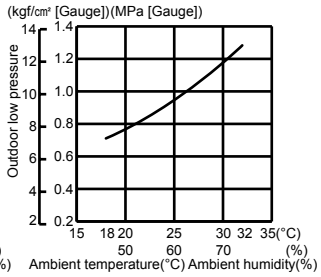
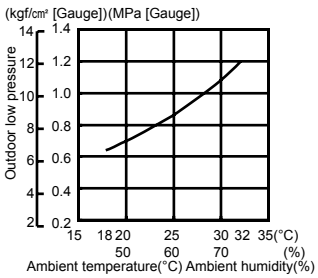
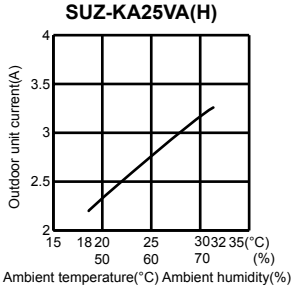


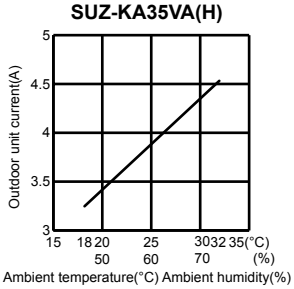
SUZ-KA71VA



SUZ-KA25VA(H)



SUZ-KA35VA(H)



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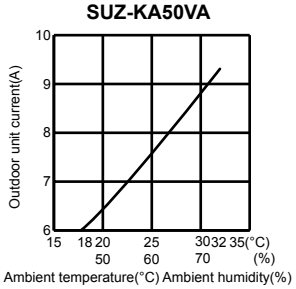
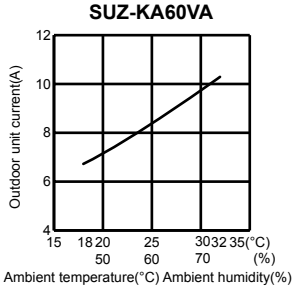


SUZ-KA60VA



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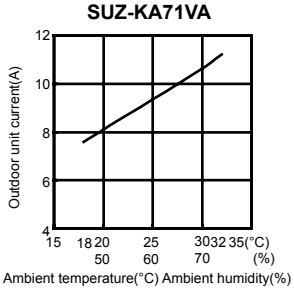
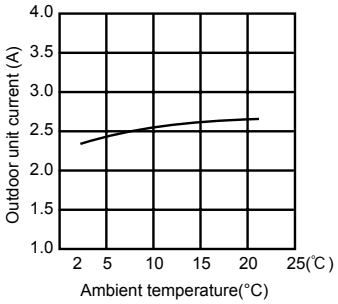


HEAT operation

Condition indoor: Dry bulb temperature 20.0°C
Wet bulb temperature 14.5°C
Condition outdoor: Dry bulb temperature 2,7,15,20.0°C
Wet bulb temperature 1,6,12,14.5°C

SUZ-KA25VA(H)



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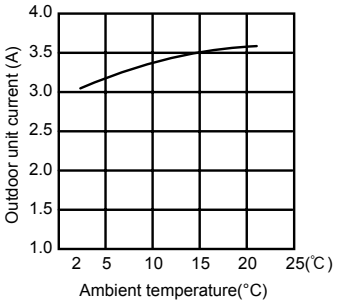
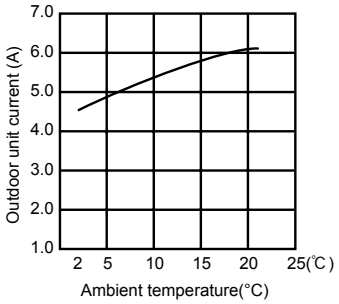
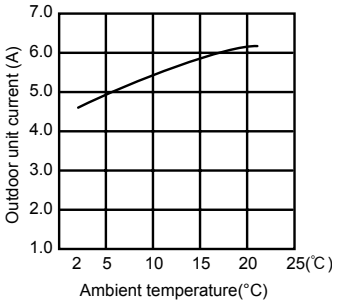


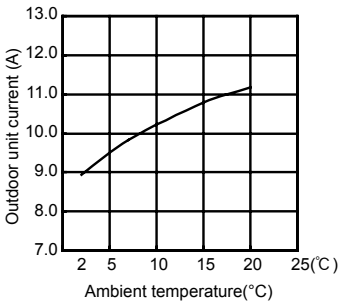
SUZ-KA50VA



SUZ-KA60VA



SUZ-KA71VA



PERFORMANCE DATA
COOLING operation at Rated frequency
SLZ-KA25VA(L)/SUZ-KA25VA(H)
CAPACITY : 2.5(kW) INPUT : 690(W) SHF : 0.86

		OUTDOOR D.B.(℃)															
INDOOR	INDOOR	21				25				27				30			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	2.94	2.00	0.68	552	2.81	1.91	0.68	580	2.70	1.84	0.68	607	2.60	1.77	0.68	635
21	20	3.06	1.72	0.56	580	2.94	1.65	0.56	614	2.85	1.60	0.56	628	2.75	1.54	0.56	656
22	18	2.94	2.12	0.72	552	2.81	2.03	0.72	580	2.70	1.94	0.72	607	2.60	1.87	0.72	635
22	20	3.06	1.84	0.60	580	2.94	1.76	0.60	614	2.85	1.71	0.60	628	2.75	1.65	0.60	656
22	22	3.19	1.53	0.48	600	3.08	1.48	0.48	638	3.00	1.44	0.48	656	2.88	1.38	0.48	683
23	18	2.94	2.23	0.76	552	2.81	2.14	0.76	580	2.70	2.05	0.76	607	2.60	1.98	0.76	635
23	20	3.06	1.96	0.64	580	2.94	1.88	0.64	614	2.85	1.82	0.64	628	2.75	1.76	0.64	656
23	22	3.19	1.66	0.52	600	3.08	1.60	0.52	638	3.00	1.56	0.52	656	2.88	1.50	0.52	683
24	18	2.94	2.35	0.80	552	2.81	2.25	0.80	580	2.70	2.16	0.80	607	2.60	2.08	0.80	635
24	20	3.06	2.08	0.68	580	2.94	2.00	0.68	614	2.85	1.94	0.68	628	2.75	1.87	0.68	656
24	22	3.19	1.79	0.56	600	3.08	1.72	0.56	638	3.00	1.68	0.56	656	2.88	1.61	0.56	683
24	24	3.35	1.47	0.44	628	3.23	1.42	0.44	662	3.15	1.39	0.44	683	3.05	1.34	0.44	718
25	20	3.06	2.21	0.72	580	2.94	2.12	0.72	614	2.85	2.05	0.72	628	2.75	1.98	0.72	656
25	22	3.19	1.91	0.60	600	3.08	1.85	0.60	638	3.00	1.80	0.60	656	2.88	1.73	0.60	683
25	24	3.35	1.61	0.48	628	3.23	1.55	0.48	662	3.15	1.51	0.48	683	3.05	1.46	0.48	718
26	18	2.94	2.59	0.88	552	2.81	2.48	0.88	580	2.70	2.38	0.88	607	2.60	2.29	0.88	635
26	20	3.06	2.33	0.76	580	2.94	2.23	0.76	614	2.85	2.17	0.76	628	2.75	2.09	0.76	656
26	22	3.19	2.04	0.64	600	3.08	1.97	0.64	638	3.00	1.92	0.64	656	2.88	1.84	0.64	683
26	24	3.35	1.74	0.52	628	3.23	1.68	0.52	662	3.15	1.64	0.52	683	3.05	1.59	0.52	718
26	26	3.45	1.38	0.40	662	3.35	1.34	0.40	697	3.30	1.32	0.40	718	3.20	1.28	0.40	738
27	18	2.94	2.70	0.92	552	2.81	2.59	0.92	580	2.70	2.48	0.92	607	2.60	2.39	0.92	635
27	20	3.06	2.45	0.80	580	2.94	2.35	0.80	614	2.85	2.28	0.80	628	2.75	2.20	0.80	656
27	22	3.19	2.17	0.68	600	3.08	2.09	0.68	638	3.00	2.04	0.68	656	2.88	1.96	0.68	683
27	24	3.35	1.88	0.56	628	3.23	1.81	0.56	662	3.15	1.76	0.56	683	3.05	1.71	0.56	718
27	26	3.45	1.52	0.44	662	3.35	1.47	0.44	697	3.30	1.45	0.44	718	3.20	1.41	0.44	738
28	18	2.94	2.82	0.96	552	2.81	2.70	0.96	580	2.70	2.59	0.96	607	2.60	2.50	0.96	635
28	20	3.06	2.57	0.84	580	2.94	2.47	0.84	614	2.85	2.39	0.84	628	2.75	2.31	0.84	656
28	22	3.19	2.30	0.72	600	3.08	2.21	0.72	638	3.00	2.16	0.72	656	2.88	2.07	0.72	683
28	24	3.35	2.01	0.60	628	3.23	1.94	0.60	662	3.15	1.89	0.60	683	3.05	1.83	0.60	718
28	26	3.45	1.66	0.48	662	3.35	1.61	0.48	697	3.30	1.58	0.48	718	3.20	1.54	0.48	738
29	18	2.94	2.94	1.00	552	2.81	2.81	1.00	580	2.70	2.70	1.00	607	2.60	2.60	1.00	635
29	20	3.06	2.70	0.88	580	2.94	2.59	0.88	614	2.85	2.51	0.88	628	2.75	2.42	0.88	656
29	22	3.19	2.42	0.76	600	3.08	2.34	0.76	638	3.00	2.28	0.76	656	2.88	2.19	0.76	683
29	24	3.35	2.14	0.64	628	3.23	2.06	0.64	662	3.15	2.02	0.64	683	3.05	1.95	0.64	718
29	26	3.45	1.79	0.52	662	3.35	1.74	0.52	697	3.30	1.72	0.52	718	3.20	1.66	0.52	738
30	18	2.94	2.94	1.00	552	2.81	2.81	1.00	580	2.70	2.70	1.00	607	2.60	2.60	1.00	635
30	20	3.06	2.82	0.92	580	2.94	2.70	0.92	614	2.85	2.62	0.92	628	2.75	2.53	0.92	656
30	22	3.19	2.55	0.80	600	3.08	2.46	0.80	638	3.00	2.40	0.80	656	2.88	2.30	0.80	683
30	24	3.35	2.28	0.68	628	3.23	2.19	0.68	662	3.15	2.14	0.68	683	3.05	2.07	0.68	718
30	26	3.45	1.93	0.56	662	3.35	1.88	0.56	697	3.30	1.85	0.56	718	3.20	1.79	0.56	738
31	18	2.94	2.94	1.00	552	2.81	2.81	1.00	580	2.70	2.70	1.00	607	2.60	2.60	1.00	635
31	20	3.06	2.94	0.96	580	2.94	2.82	0.96	614	2.85	2.74	0.96	628	2.75	2.64	0.96	656
31	22	3.19	2.68	0.84	600	3.08	2.58	0.84	638	3.00	2.52	0.84	656	2.88	2.42	0.84	683
31	24	3.35	2.41	0.72	628	3.23	2.32	0.72	662	3.15	2.27	0.72	683	3.05	2.20	0.72	718
31	26	3.45	2.07	0.60	662	3.35	2.01	0.60	697	3.30	1.98	0.60	718	3.20	1.92	0.60	738
32	18	2.94	2.94	1.00	552	2.81	2.81	1.00	580	2.70	2.70	1.00	607	2.60	2.60	1.00	635
32	20	3.06	3.06	1.00	580	2.94	2.94	1.00	614	2.85	2.85	1.00	628	2.75	2.75	1.00	656
32	22	3.19	2.81	0.88	600	3.08	2.71	0.88	638	3.00	2.64	0.88	656	2.88	2.53	0.88	683
32	24	3.35	2.55	0.76	628	3.23	2.45	0.76	662	3.15	2.39	0.76	683	3.05	2.32	0.76	718
32	26	3.45	2.21	0.64	662	3.35	2.14	0.64	697	3.30	2.11	0.64	718	3.20	2.05	0.64	738

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SLZ-KA25VA(L)/SUZ-KA25VA(H)
CAPACITY : 2.5(kW) INPUT : 690(W) SHF : 0.86

		OUTDOOR D.B.(℃)											
INDOOR	INDOOR	35				40				46			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	2.45	1.67	0.68	676	2.25	1.53	0.68	718	2.08	1.41	0.68	745
21	20	2.58	1.44	0.56	704	2.40	1.34	0.56	738	2.23	1.25	0.56	780
22	18	2.45	1.76	0.72	676	2.25	1.62	0.72	718	2.08	1.49	0.72	745
22	20	2.58	1.55	0.60	704	2.40	1.44	0.60	738	2.23	1.34	0.60	780
22	22	2.73	1.31	0.48	731	2.55	1.22	0.48	773	2.38	1.14	0.48	800
23	18	2.45	1.86	0.76	676	2.25	1.71	0.76	718	2.08	1.58	0.76	745
23	20	2.58	1.65	0.64	704	2.40	1.54	0.64	738	2.23	1.42	0.64	780
23	22	2.73	1.42	0.52	731	2.55	1.33	0.52	773	2.38	1.24	0.52	800
24	18	2.45	1.96	0.80	676	2.25	1.80	0.80	718	2.08	1.66	0.80	745
24	20	2.58	1.75	0.68	704	2.40	1.63	0.68	738	2.23	1.51	0.68	780
24	22	2.73	1.53	0.56	731	2.55	1.43	0.56	773	2.38	1.33	0.56	800
24	24	2.88	1.27	0.44	759	2.70	1.19	0.44	794	2.55	1.12	0.44	828
25	20	2.58	1.85	0.72	704	2.40	1.73	0.72	738	2.23	1.60	0.72	780
25	22	2.73	1.64	0.60	731	2.55	1.53	0.60	773	2.38	1.43	0.60	800
25	24	2.88	1.38	0.48	759	2.70	1.30	0.48	794	2.55	1.22	0.48	828
26	18	2.45	2.16	0.88	676	2.25	1.98	0.88	718	2.08	1.83	0.88	745
26	20	2.58	1.96	0.76	704	2.40	1.82	0.76	738	2.23	1.69	0.76	780
26	22	2.73	1.74	0.64	731	2.55	1.63	0.64	773	2.38	1.52	0.64	800
26	24	2.88	1.50	0.52	759	2.70	1.40	0.52	794	2.55	1.33	0.52	828
26	26	3.03	1.21	0.40	787	2.85	1.14	0.40	821	2.68	1.07	0.40	856
27	18	2.45	2.25	0.92	676	2.25	2.07	0.92	718	2.08	1.91	0.92	745
27	20	2.58	2.06	0.80	704	2.40	1.92	0.80	738	2.23	1.78	0.80	780
27	22	2.73	1.85	0.68	731	2.55	1.73	0.68	773	2.38	1.62	0.68	800
27	24	2.88	1.61	0.56	759	2.70	1.51	0.56	794	2.55	1.43	0.56	828
27	26	3.03	1.33	0.44	787	2.85	1.25	0.44	821	2.68	1.18	0.44	856
28	18	2.45	2.35	0.96	676	2.25	2.16	0.96	718	2.08	1.99	0.96	745
28	20	2.58	2.16	0.84	704	2.40	2.02	0.84	738	2.23	1.87	0.84	780
28	22	2.73	1.96	0.72	731	2.55	1.84	0.72	773	2.38	1.71	0.72	800
28	24	2.88	1.73	0.60	759	2.70	1.62	0.60	794	2.55	1.53	0.60	828
28	26	3.03	1.45	0.48	787	2.85	1.37	0.48	821	2.68	1.28	0.48	856
29	18	2.45	2.45	1.00	676	2.25	2.25	1.00	718	2.08	2.08	1.00	745
29	20	2.58	2.27	0.88	704	2.40	2.11	0.88	738	2.23	1.96	0.88	780
29	22	2.73	2.07	0.76	731	2.55	1.94	0.76	773	2.38	1.81	0.76	800
29	24	2.88	1.84	0.64	759	2.70	1.73	0.64	794	2.55	1.63	0.64	828
29	26	3.03	1.57	0.52	787	2.85	1.48	0.52	821	2.68	1.39	0.52	856
30	18	2.45	2.45	1.00	676	2.25	2.25	1.00	718	2.08	2.08	1.00	745
30	20	2.58	2.37	0.92	704	2.40	2.21	0.92	738	2.23	2.05	0.92	780
30	22	2.73	2.18	0.80	731	2.55	2.04	0.80	773	2.38	1.90	0.80	800
30	24	2.88	1.96	0.68	759	2.70	1.84	0.68	794	2.55	1.73	0.68	828
30	26	3.03	1.69	0.56	787	2.85	1.60	0.56	821	2.68	1.50	0.56	856
31	18	2.45	2.45	1.00	676	2.25	2.25	1.00	718	2.08	2.08	1.00	745
31	20	2.58	2.47	0.96	704	2.40	2.30	0.96	738	2.23	2.14	0.96	780
31	22	2.73	2.29	0.84	731	2.55	2.14	0.84	773	2.38	2.00	0.84	800
31	24	2.88	2.07	0.72	759	2.70	1.94	0.72	794	2.55	1.84	0.72	828
31	26	3.03	1.82	0.60	787	2.85	1.71	0.60	821	2.68	1.61	0.60	856
32	18	2.45	2.45	1.00	676	2.25	2.25	1.00	718	2.08	2.08	1.00	745
32	20	2.58	2.58	1.00	704	2.40	2.40	1.00	738	2.23	2.23	1.00	780
32	22	2.73	2.40	0.88	731	2.55	2.24	0.88	773	2.38	2.09	0.88	800
32	24	2.88	2.19	0.76	759	2.70	2.05	0.76	794	2.55	1.94	0.76	828
32	26	3.03	1.94	0.64	787	2.85	1.82	0.64	821	2.68	1.71	0.64	856

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SLZ-KA35VA(L)/SUZ-KA35VA(H)
CAPACITY : 3.5(kW) INPUT : 1060(W) SHF : 0.77

		OUTDOOR D.B.(℃)															
INDOOR	INDOOR	21				25				27				30			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.11	2.43	0.59	848	3.94	2.32	0.59	890	3.78	2.23	0.59	933	3.64	2.15	0.59	975
21	20	4.29	2.02	0.47	890	4.11	1.93	0.47	943	3.99	1.88	0.47	965	3.85	1.81	0.47	1007
22	18	4.11	2.59	0.63	848	3.94	2.48	0.63	890	3.78	2.38	0.63	933	3.64	2.29	0.63	975
22	20	4.29	2.19	0.51	890	4.11	2.10	0.51	943	3.99	2.03	0.51	965	3.85	1.96	0.51	1007
22	22	4.46	1.74	0.39	922	4.31	1.68	0.39	981	4.20	1.64	0.39	1007	4.03	1.57	0.39	1049
23	18	4.11	2.76	0.67	848	3.94	2.64	0.67	890	3.78	2.53	0.67	933	3.64	2.44	0.67	975
23	20	4.29	2.36	0.55	890	4.11	2.26	0.55	943	3.99	2.19	0.55	965	3.85	2.12	0.55	1007
23	22	4.46	1.92	0.43	922	4.31	1.85	0.43	981	4.20	1.81	0.43	1007	4.03	1.73	0.43	1049
24	18	4.11	2.92	0.71	848	3.94	2.80	0.71	890	3.78	2.68	0.71	933	3.64	2.58	0.71	975
24	20	4.29	2.53	0.59	890	4.11	2.43	0.59	943	3.99	2.35	0.59	965	3.85	2.27	0.59	1007
24	22	4.46	2.10	0.47	922	4.31	2.02	0.47	981	4.20	1.97	0.47	1007	4.03	1.89	0.47	1049
24	24	4.69	1.64	0.35	965	4.52	1.58	0.35	1018	4.41	1.54	0.35	1049	4.27	1.49	0.35	1102
25	20	4.29	2.70	0.63	890	4.11	2.59	0.63	943	3.99	2.51	0.63	965	3.85	2.43	0.63	1007
25	22	4.46	2.28	0.51	922	4.31	2.20	0.51	981	4.20	2.14	0.51	1007	4.03	2.05	0.51	1049
25	24	4.69	1.83	0.39	965	4.52	1.76	0.39	1018	4.41	1.72	0.39	1049	4.27	1.67	0.39	1102
26	18	4.11	3.25	0.79	848	3.94	3.11	0.79	890	3.78	2.99	0.79	933	3.64	2.88	0.79	975
26	20	4.29	2.87	0.67	890	4.11	2.76	0.67	943	3.99	2.67	0.67	965	3.85	2.58	0.67	1007
26	22	4.46	2.45	0.55	922	4.31	2.37	0.55	981	4.20	2.31	0.55	1007	4.03	2.21	0.55	1049
26	24	4.69	2.02	0.43	965	4.52	1.94	0.43	1018	4.41	1.90	0.43	1049	4.27	1.84	0.43	1102
26	26	4.83	1.50	0.31	1018	4.69	1.45	0.31	1071	4.62	1.43	0.31	1102	4.48	1.39	0.31	1134
27	18	4.11	3.41	0.83	848	3.94	3.27	0.83	890	3.78	3.14	0.83	933	3.64	3.02	0.83	975
27	20	4.29	3.04	0.71	890	4.11	2.92	0.71	943	3.99	2.83	0.71	965	3.85	2.73	0.71	1007
27	22	4.46	2.63	0.59	922	4.31	2.54	0.59	981	4.20	2.48	0.59	1007	4.03	2.37	0.59	1049
27	24	4.69	2.20	0.47	965	4.52	2.12	0.47	1018	4.41	2.07	0.47	1049	4.27	2.01	0.47	1102
27	26	4.83	1.69	0.35	1018	4.69	1.64	0.35	1071	4.62	1.62	0.35	1102	4.48	1.57	0.35	1134
28	18	4.11	3.58	0.87	848	3.94	3.43	0.87	890	3.78	3.29	0.87	933	3.64	3.17	0.87	975
28	20	4.29	3.22	0.75	890	4.11	3.08	0.75	943	3.99	2.99	0.75	965	3.85	2.89	0.75	1007
28	22	4.46	2.81	0.63	922	4.31	2.71	0.63	981	4.20	2.65	0.63	1007	4.03	2.54	0.63	1049
28	24	4.69	2.39	0.51	965	4.52	2.30	0.51	1018	4.41	2.25	0.51	1049	4.27	2.18	0.51	1102
28	26	4.83	1.88	0.39	1018	4.69	1.83	0.39	1071	4.62	1.80	0.39	1102	4.48	1.75	0.39	1134
29	18	4.11	3.74	0.91	848	3.94	3.58	0.91	890	3.78	3.44	0.91	933	3.64	3.31	0.91	975
29	20	4.29	3.39	0.79	890	4.11	3.25	0.79	943	3.99	3.15	0.79	965	3.85	3.04	0.79	1007
29	22	4.46	2.99	0.67	922	4.31	2.88	0.67	981	4.20	2.81	0.67	1007	4.03	2.70	0.67	1049
29	24	4.69	2.58	0.55	965	4.52	2.48	0.55	1018	4.41	2.43	0.55	1049	4.27	2.35	0.55	1102
29	26	4.83	2.08	0.43	1018	4.69	2.02	0.43	1071	4.62	1.99	0.43	1102	4.48	1.93	0.43	1134
30	18	4.11	3.91	0.95	848	3.94	3.74	0.95	890	3.78	3.59	0.95	933	3.64	3.46	0.95	975
30	20	4.29	3.56	0.83	890	4.11	3.41	0.83	943	3.99	3.31	0.83	965	3.85	3.20	0.83	1007
30	22	4.46	3.17	0.71	922	4.31	3.06	0.71	981	4.20	2.98	0.71	1007	4.03	2.86	0.71	1049
30	24	4.69	2.77	0.59	965	4.52	2.66	0.59	1018	4.41	2.60	0.59	1049	4.27	2.52	0.59	1102
30	26	4.83	2.27	0.47	1018	4.69	2.20	0.47	1071	4.62	2.17	0.47	1102	4.48	2.11	0.47	1134
31	18	4.11	4.07	0.99	848	3.94	3.90	0.99	890	3.78	3.74	0.99	933	3.64	3.60	0.99	975
31	20	4.29	3.73	0.87	890	4.11	3.58	0.87	943	3.99	3.47	0.87	965	3.85	3.35	0.87	1007
31	22	4.46	3.35	0.75	922	4.31	3.23	0.75	981	4.20	3.15	0.75	1007	4.03	3.02	0.75	1049
31	24	4.69	2.95	0.63	965	4.52	2.84	0.63	1018	4.41	2.78	0.63	1049	4.27	2.69	0.63	1102
31	26	4.83	2.46	0.51	1018	4.69	2.39	0.51	1071	4.62	2.36	0.51	1102	4.48	2.28	0.51	1134
32	18	4.11	4.11	1.00	848	3.94	3.94	1.00	890	3.78	3.78	1.00	933	3.64	3.64	1.00	975
32	20	4.29	3.90	0.91	890	4.11	3.74	0.91	943	3.99	3.63	0.91	965	3.85	3.50	0.91	1007
32	22	4.46	3.53	0.79	922	4.31	3.40	0.79	981	4.20	3.32	0.79	1007	4.03	3.18	0.79	1049
32	24	4.69	3.14	0.67	965	4.52	3.03	0.67	1018	4.41	2.95	0.67	1049	4.27	2.86	0.67	1102
32	26	4.83	2.66	0.55	1018	4.69	2.58	0.55	1071	4.62	2.54	0.55	1102	4.48	2.46	0.55	1134

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SLZ-KA35VA(L)/SUZ-KA35VA(H)
CAPACITY : 3.5(kW) INPUT : 1060(W) SHF : 0.77

		OUTDOOR D.B.(℃)											
INDOOR	INDOOR	35				40				46			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	3.43	2.02	0.59	1039	3.15	1.86	0.59	1102	2.91	1.71	0.59	1145
21	20	3.61	1.69	0.47	1081	3.36	1.58	0.47	1134	3.12	1.46	0.47	1198
22	18	3.43	2.16	0.63	1039	3.15	1.98	0.63	1102	2.91	1.83	0.63	1145
22	20	3.61	1.84	0.51	1081	3.36	1.71	0.51	1134	3.12	1.59	0.51	1198
22	22	3.82	1.49	0.39	1124	3.57	1.39	0.39	1187	3.33	1.30	0.39	1230
23	18	3.43	2.30	0.67	1039	3.15	2.11	0.67	1102	2.91	1.95	0.67	1145
23	20	3.61	1.98	0.55	1081	3.36	1.85	0.55	1134	3.12	1.71	0.55	1198
23	22	3.82	1.64	0.43	1124	3.57	1.54	0.43	1187	3.33	1.43	0.43	1230
24	18	3.43	2.44	0.71	1039	3.15	2.24	0.71	1102	2.91	2.06	0.71	1145
24	20	3.61	2.13	0.59	1081	3.36	1.98	0.59	1134	3.12	1.84	0.59	1198
24	22	3.82	1.79	0.47	1124	3.57	1.68	0.47	1187	3.33	1.56	0.47	1230
24	24	4.03	1.41	0.35	1166	3.78	1.32	0.35	1219	3.57	1.25	0.35	1272
25	20	3.61	2.27	0.63	1081	3.36	2.12	0.63	1134	3.12	1.96	0.63	1198
25	22	3.82	1.95	0.51	1124	3.57	1.82	0.51	1187	3.33	1.70	0.51	1230
25	24	4.03	1.57	0.39	1166	3.78	1.47	0.39	1219	3.57	1.39	0.39	1272
26	18	3.43	2.71	0.79	1039	3.15	2.49	0.79	1102	2.91	2.29	0.79	1145
26	20	3.61	2.42	0.67	1081	3.36	2.25	0.67	1134	3.12	2.09	0.67	1198
26	22	3.82	2.10	0.55	1124	3.57	1.96	0.55	1187	3.33	1.83	0.55	1230
26	24	4.03	1.73	0.43	1166	3.78	1.63	0.43	1219	3.57	1.54	0.43	1272
26	26	4.24	1.31	0.31	1208	3.99	1.24	0.31	1261	3.75	1.16	0.31	1314
27	18	3.43	2.85	0.83	1039	3.15	2.61	0.83	1102	2.91	2.41	0.83	1145
27	20	3.61	2.56	0.71	1081	3.36	2.39	0.71	1134	3.12	2.21	0.71	1198
27	22	3.82	2.25	0.59	1124	3.57	2.11	0.59	1187	3.33	1.96	0.59	1230
27	24	4.03	1.89	0.47	1166	3.78	1.78	0.47	1219	3.57	1.68	0.47	1272
27	26	4.24	1.48	0.35	1208	3.99	1.40	0.35	1261	3.75	1.31	0.35	1314
28	18	3.43	2.98	0.87	1039	3.15	2.74	0.87	1102	2.91	2.53	0.87	1145
28	20	3.61	2.70	0.75	1081	3.36	2.52	0.75	1134	3.12	2.34	0.75	1198
28	22	3.82	2.40	0.63	1124	3.57	2.25	0.63	1187	3.33	2.09	0.63	1230
28	24	4.03	2.05	0.51	1166	3.78	1.93	0.51	1219	3.57	1.82	0.51	1272
28	26	4.24	1.65	0.39	1208	3.99	1.56	0.39	1261	3.75	1.46	0.39	1314
29	18	3.43	3.12	0.91	1039	3.15	2.87	0.91	1102	2.91	2.64	0.91	1145
29	20	3.61	2.85	0.79	1081	3.36	2.65	0.79	1134	3.12	2.46	0.79	1198
29	22	3.82	2.56	0.67	1124	3.57	2.39	0.67	1187	3.33	2.23	0.67	1230
29	24	4.03	2.21	0.55	1166	3.78	2.08	0.55	1219	3.57	1.96	0.55	1272
29	26	4.24	1.82	0.43	1208	3.99	1.72	0.43	1261	3.75	1.61	0.43	1314
30	18	3.43	3.26	0.95	1039	3.15	2.99	0.95	1102	2.91	2.76	0.95	1145
30	20	3.61	2.99	0.83	1081	3.36	2.79	0.83	1134	3.12	2.59	0.83	1198
30	22	3.82	2.71	0.71	1124	3.57	2.53	0.71	1187	3.33	2.36	0.71	1230
30	24	4.03	2.37	0.59	1166	3.78	2.23	0.59	1219	3.57	2.11	0.59	1272
30	26	4.24	1.99	0.47	1208	3.99	1.88	0.47	1261	3.75	1.76	0.47	1314
31	18	3.43	3.40	0.99	1039	3.15	3.12	0.99	1102	2.91	2.88	0.99	1145
31	20	3.61	3.14	0.87	1081	3.36	2.92	0.87	1134	3.12	2.71	0.87	1198
31	22	3.82	2.86	0.75	1124	3.57	2.68	0.75	1187	3.33	2.49	0.75	1230
31	24	4.03	2.54	0.63	1166	3.78	2.38	0.63	1219	3.57	2.25	0.63	1272
31	26	4.24	2.16	0.51	1208	3.99	2.03	0.51	1261	3.75	1.91	0.51	1314
32	18	3.43	3.43	1.00	1039	3.15	3.15	1.00	1102	2.91	2.91	1.00	1145
32	20	3.61	3.28	0.91	1081	3.36	3.06	0.91	1134	3.12	2.83	0.91	1198
32	22	3.82	3.01	0.79	1124	3.57	2.82	0.79	1187	3.33	2.63	0.79	1230
32	24	4.03	2.70	0.67	1166	3.78	2.53	0.67	1219	3.57	2.39	0.67	1272
32	26	4.24	2.33	0.55	1208	3.99	2.19	0.55	1261	3.75	2.06	0.55	1314

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SLZ-KA50VA(L)/SUZ-KA50VA
CAPACITY : 4.6(kW) INPUT : 1630(W) SHF : 0.68

		OUTDOOR D.B.(℃)															
INDOOR	INDOOR	21				25				27				30			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	5.41	2.70	0.50	1304	5.18	2.59	0.50	1369	4.97	2.48	0.50	1434	4.78	2.39	0.50	1500
21	20	5.64	2.14	0.38	1369	5.41	2.05	0.38	1451	5.24	1.99	0.38	1483	5.06	1.92	0.38	1549
22	18	5.41	2.92	0.54	1304	5.18	2.79	0.54	1369	4.97	2.68	0.54	1434	4.78	2.58	0.54	1500
22	20	5.64	2.37	0.42	1369	5.41	2.27	0.42	1451	5.24	2.20	0.42	1483	5.06	2.13	0.42	1549
22	22	5.87	1.76	0.30	1418	5.66	1.70	0.30	1508	5.52	1.66	0.30	1549	5.29	1.59	0.30	1614
23	18	5.41	3.13	0.58	1304	5.18	3.00	0.58	1369	4.97	2.88	0.58	1434	4.78	2.77	0.58	1500
23	20	5.64	2.59	0.46	1369	5.41	2.49	0.46	1451	5.24	2.41	0.46	1483	5.06	2.33	0.46	1549
23	22	5.87	1.99	0.34	1418	5.66	1.92	0.34	1508	5.52	1.88	0.34	1549	5.29	1.80	0.34	1614
24	18	5.41	3.35	0.62	1304	5.18	3.21	0.62	1369	4.97	3.08	0.62	1434	4.78	2.97	0.62	1500
24	20	5.64	2.82	0.50	1369	5.41	2.70	0.50	1451	5.24	2.62	0.50	1483	5.06	2.53	0.50	1549
24	22	5.87	2.23	0.38	1418	5.66	2.15	0.38	1508	5.52	2.10	0.38	1549	5.29	2.01	0.38	1614
24	24	6.16	1.60	0.26	1483	5.93	1.54	0.26	1565	5.80	1.51	0.26	1614	5.61	1.46	0.26	1695
25	20	5.64	3.04	0.54	1369	5.41	2.92	0.54	1451	5.24	2.83	0.54	1483	5.06	2.73	0.54	1549
25	22	5.87	2.46	0.42	1418	5.66	2.38	0.42	1508	5.52	2.32	0.42	1549	5.29	2.22	0.42	1614
25	24	6.16	1.85	0.30	1483	5.93	1.78	0.30	1565	5.80	1.74	0.30	1614	5.61	1.68	0.30	1695
26	18	5.41	3.78	0.70	1304	5.18	3.62	0.70	1369	4.97	3.48	0.70	1434	4.78	3.35	0.70	1500
26	20	5.64	3.27	0.58	1369	5.41	3.13	0.58	1451	5.24	3.04	0.58	1483	5.06	2.93	0.58	1549
26	22	5.87	2.70	0.46	1418	5.66	2.60	0.46	1508	5.52	2.54	0.46	1549	5.29	2.43	0.46	1614
26	24	6.16	2.10	0.34	1483	5.93	2.02	0.34	1565	5.80	1.97	0.34	1614	5.61	1.91	0.34	1695
26	26	6.35	1.40	0.22	1565	6.16	1.36	0.22	1646	6.07	1.34	0.22	1695	5.89	1.30	0.22	1744
27	18	5.41	4.00	0.74	1304	5.18	3.83	0.74	1369	4.97	3.68	0.74	1434	4.78	3.54	0.74	1500
27	20	5.64	3.49	0.62	1369	5.41	3.35	0.62	1451	5.24	3.25	0.62	1483	5.06	3.14	0.62	1549
27	22	5.87	2.93	0.50	1418	5.66	2.83	0.50	1508	5.52	2.76	0.50	1549	5.29	2.65	0.50	1614
27	24	6.16	2.34	0.38	1483	5.93	2.25	0.38	1565	5.80	2.20	0.38	1614	5.61	2.13	0.38	1695
27	26	6.35	1.65	0.26	1565	6.16	1.60	0.26	1646	6.07	1.58	0.26	1695	5.89	1.53	0.26	1744
28	18	5.41	4.22	0.78	1304	5.18	4.04	0.78	1369	4.97	3.88	0.78	1434	4.78	3.73	0.78	1500
28	20	5.64	3.72	0.66	1369	5.41	3.57	0.66	1451	5.24	3.46	0.66	1483	5.06	3.34	0.66	1549
28	22	5.87	3.17	0.54	1418	5.66	3.06	0.54	1508	5.52	2.98	0.54	1549	5.29	2.86	0.54	1614
28	24	6.16	2.59	0.42	1483	5.93	2.49	0.42	1565	5.80	2.43	0.42	1614	5.61	2.36	0.42	1695
28	26	6.35	1.90	0.30	1565	6.16	1.85	0.30	1646	6.07	1.82	0.30	1695	5.89	1.77	0.30	1744
29	18	5.41	4.43	0.82	1304	5.18	4.24	0.82	1369	4.97	4.07	0.82	1434	4.78	3.92	0.82	1500
29	20	5.64	3.94	0.70	1369	5.41	3.78	0.70	1451	5.24	3.67	0.70	1483	5.06	3.54	0.70	1549
29	22	5.87	3.40	0.58	1418	5.66	3.28	0.58	1508	5.52	3.20	0.58	1549	5.29	3.07	0.58	1614
29	24	6.16	2.84	0.46	1483	5.93	2.73	0.46	1565	5.80	2.67	0.46	1614	5.61	2.58	0.46	1695
29	26	6.35	2.16	0.34	1565	6.16	2.10	0.34	1646	6.07	2.06	0.34	1695	5.89	2.00	0.34	1744
30	18	5.41	4.65	0.86	1304	5.18	4.45	0.86	1369	4.97	4.27	0.86	1434	4.78	4.11	0.86	1500
30	20	5.64	4.17	0.74	1369	5.41	4.00	0.74	1451	5.24	3.88	0.74	1483	5.06	3.74	0.74	1549
30	22	5.87	3.64	0.62	1418	5.66	3.51	0.62	1508	5.52	3.42	0.62	1549	5.29	3.28	0.62	1614
30	24	6.16	3.08	0.50	1483	5.93	2.97	0.50	1565	5.80	2.90	0.50	1614	5.61	2.81	0.50	1695
30	26	6.35	2.41	0.38	1565	6.16	2.34	0.38	1646	6.07	2.31	0.38	1695	5.89	2.24	0.38	1744
31	18	5.41	4.86	0.90	1304	5.18	4.66	0.90	1369	4.97	4.47	0.90	1434	4.78	4.31	0.90	1500
31	20	5.64	4.40	0.78	1369	5.41	4.22	0.78	1451	5.24	4.09	0.78	1483	5.06	3.95	0.78	1549
31	22	5.87	3.87	0.66	1418	5.66	3.73	0.66	1508	5.52	3.64	0.66	1549	5.29	3.49	0.66	1614
31	24	6.16	3.33	0.54	1483	5.93	3.20	0.54	1565	5.80	3.13	0.54	1614	5.61	3.03	0.54	1695
31	26	6.35	2.67	0.42	1565	6.16	2.59	0.42	1646	6.07	2.55	0.42	1695	5.89	2.47	0.42	1744
32	18	5.41	5.08	0.94	1304	5.18	4.86	0.94	1369	4.97	4.67	0.94	1434	4.78	4.50	0.94	1500
32	20	5.64	4.62	0.82	1369	5.41	4.43	0.82	1451	5.24	4.30	0.82	1483	5.06	4.15	0.82	1549
32	22	5.87	4.11	0.70	1418	5.66	3.96	0.70	1508	5.52	3.86	0.70	1549	5.29	3.70	0.70	1614
32	24	6.16	3.58	0.58	1483	5.93	3.44	0.58	1565	5.80	3.36	0.58	1614	5.61	3.25	0.58	1695
32	26	6.35	2.92	0.46	1565	6.16	2.84	0.46	1646	6.07	2.79	0.46	1695	5.89	2.71	0.46	1744

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SLZ-KA50VA(L)/SUZ-KA50VA
CAPACITY : 4.6(kW) INPUT : 1630(W) SHF : 0.68

		OUTDOOR D.B.(℃)											
INDOOR	INDOOR	35				40				46			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.51	2.25	0.50	1597	4.14	2.07	0.50	1695	3.82	1.91	0.50	1760
21	20	4.74	1.80	0.38	1663	4.42	1.68	0.38	1744	4.09	1.56	0.38	1842
22	18	4.51	2.43	0.54	1597	4.14	2.24	0.54	1695	3.82	2.06	0.54	1760
22	20	4.74	1.99	0.42	1663	4.42	1.85	0.42	1744	4.09	1.72	0.42	1842
22	22	5.01	1.50	0.30	1728	4.69	1.41	0.30	1826	4.37	1.31	0.30	1891
23	18	4.51	2.61	0.58	1597	4.14	2.40	0.58	1695	3.82	2.21	0.58	1760
23	20	4.74	2.18	0.46	1663	4.42	2.03	0.46	1744	4.09	1.88	0.46	1842
23	22	5.01	1.70	0.34	1728	4.69	1.60	0.34	1826	4.37	1.49	0.34	1891
24	18	4.51	2.79	0.62	1597	4.14	2.57	0.62	1695	3.82	2.37	0.62	1760
24	20	4.74	2.37	0.50	1663	4.42	2.21	0.50	1744	4.09	2.05	0.50	1842
24	22	5.01	1.91	0.38	1728	4.69	1.78	0.38	1826	4.37	1.66	0.38	1891
24	24	5.29	1.38	0.26	1793	4.97	1.29	0.26	1875	4.69	1.22	0.26	1956
25	20	4.74	2.56	0.54	1663	4.42	2.38	0.54	1744	4.09	2.21	0.54	1842
25	22	5.01	2.11	0.42	1728	4.69	1.97	0.42	1826	4.37	1.84	0.42	1891
25	24	5.29	1.59	0.30	1793	4.97	1.49	0.30	1875	4.69	1.41	0.30	1956
26	18	4.51	3.16	0.70	1597	4.14	2.90	0.70	1695	3.82	2.67	0.70	1760
26	20	4.74	2.75	0.58	1663	4.42	2.56	0.58	1744	4.09	2.37	0.58	1842
26	22	5.01	2.31	0.46	1728	4.69	2.16	0.46	1826	4.37	2.01	0.46	1891
26	24	5.29	1.80	0.34	1793	4.97	1.69	0.34	1875	4.69	1.60	0.34	1956
26	26	5.57	1.22	0.22	1858	5.24	1.15	0.22	1940	4.92	1.08	0.22	2021
27	18	4.51	3.34	0.74	1597	4.14	3.06	0.74	1695	3.82	2.83	0.74	1760
27	20	4.74	2.94	0.62	1663	4.42	2.74	0.62	1744	4.09	2.54	0.62	1842
27	22	5.01	2.51	0.50	1728	4.69	2.35	0.50	1826	4.37	2.19	0.50	1891
27	24	5.29	2.01	0.38	1793	4.97	1.89	0.38	1875	4.69	1.78	0.38	1956
27	26	5.57	1.45	0.26	1858	5.24	1.36	0.26	1940	4.92	1.28	0.26	2021
28	18	4.51	3.52	0.78	1597	4.14	3.23	0.78	1695	3.82	2.98	0.78	1760
28	20	4.74	3.13	0.66	1663	4.42	2.91	0.66	1744	4.09	2.70	0.66	1842
28	22	5.01	2.71	0.54	1728	4.69	2.53	0.54	1826	4.37	2.36	0.54	1891
28	24	5.29	2.22	0.42	1793	4.97	2.09	0.42	1875	4.69	1.97	0.42	1956
28	26	5.57	1.67	0.30	1858	5.24	1.57	0.30	1940	4.92	1.48	0.30	2021
29	18	4.51	3.70	0.82	1597	4.14	3.39	0.82	1695	3.82	3.13	0.82	1760
29	20	4.74	3.32	0.70	1663	4.42	3.09	0.70	1744	4.09	2.87	0.70	1842
29	22	5.01	2.91	0.58	1728	4.69	2.72	0.58	1826	4.37	2.53	0.58	1891
29	24	5.29	2.43	0.46	1793	4.97	2.29	0.46	1875	4.69	2.16	0.46	1956
29	26	5.57	1.89	0.34	1858	5.24	1.78	0.34	1940	4.92	1.67	0.34	2021
30	18	4.51	3.88	0.86	1597	4.14	3.56	0.86	1695	3.82	3.28	0.86	1760
30	20	4.74	3.51	0.74	1663	4.42	3.27	0.74	1744	4.09	3.03	0.74	1842
30	22	5.01	3.11	0.62	1728	4.69	2.91	0.62	1826	4.37	2.71	0.62	1891
30	24	5.29	2.65	0.50	1793	4.97	2.48	0.50	1875	4.69	2.35	0.50	1956
30	26	5.57	2.12	0.38	1858	5.24	1.99	0.38	1940	4.92	1.87	0.38	2021
31	18	4.51	4.06	0.90	1597	4.14	3.73	0.90	1695	3.82	3.44	0.90	1760
31	20	4.74	3.70	0.78	1663	4.42	3.44	0.78	1744	4.09	3.19	0.78	1842
31	22	5.01	3.31	0.66	1728	4.69	3.10	0.66	1826	4.37	2.88	0.66	1891
31	24	5.29	2.86	0.54	1793	4.97	2.68	0.54	1875	4.69	2.53	0.54	1956
31	26	5.57	2.34	0.42	1858	5.24	2.20	0.42	1940	4.92	2.07	0.42	2021
32	18	4.51	4.24	0.94	1597	4.14	3.89	0.94	1695	3.82	3.59	0.94	1760
32	20	4.74	3.89	0.82	1663	4.42	3.62	0.82	1744	4.09	3.36	0.82	1842
32	22	5.01	3.51	0.70	1728	4.69	3.28	0.70	1826	4.37	3.06	0.70	1891
32	24	5.29	3.07	0.58	1793	4.97	2.88	0.58	1875	4.69	2.72	0.58	1956
32	26	5.57	2.56	0.46	1858	5.24	2.41	0.46	1940	4.92	2.26	0.46	2021

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SEZ-KC25VA/SUZ-KA25VA(H)
CAPACITY : 2.5(kW) INPUT : 730(W) SHF : 0.74

		OUTDOOR D.B.(℃)															
INDOOR	INDOOR	21				25				27				30			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	2.94	1.65	0.56	584	2.81	1.58	0.56	613	2.70	1.51	0.56	642	2.60	1.46	0.56	672
21	20	3.06	1.35	0.44	613	2.94	1.29	0.44	650	2.85	1.25	0.44	664	2.75	1.21	0.44	694
22	18	2.94	1.76	0.60	584	2.81	1.69	0.60	613	2.70	1.62	0.60	642	2.60	1.56	0.60	672
22	20	3.06	1.47	0.48	613	2.94	1.41	0.48	650	2.85	1.37	0.48	664	2.75	1.32	0.48	694
22	22	3.19	1.15	0.36	635	3.08	1.11	0.36	675	3.00	1.08	0.36	694	2.88	1.04	0.36	723
23	18	2.94	1.88	0.64	584	2.81	1.80	0.64	613	2.70	1.73	0.64	642	2.60	1.66	0.64	672
23	20	3.06	1.59	0.52	613	2.94	1.53	0.52	650	2.85	1.48	0.52	664	2.75	1.43	0.52	694
23	22	3.19	1.28	0.40	635	3.08	1.23	0.40	675	3.00	1.20	0.40	694	2.88	1.15	0.40	723
24	18	2.94	2.00	0.68	584	2.81	1.91	0.68	613	2.70	1.84	0.68	642	2.60	1.77	0.68	672
24	20	3.06	1.72	0.56	613	2.94	1.65	0.56	650	2.85	1.60	0.56	664	2.75	1.54	0.56	694
24	22	3.19	1.40	0.44	635	3.08	1.35	0.44	675	3.00	1.32	0.44	694	2.88	1.27	0.44	723
24	24	3.35	1.07	0.32	664	3.23	1.03	0.32	701	3.15	1.01	0.32	723	3.05	0.98	0.32	759
25	20	3.06	1.84	0.60	613	2.94	1.76	0.60	650	2.85	1.71	0.60	664	2.75	1.65	0.60	694
25	22	3.19	1.53	0.48	635	3.08	1.48	0.48	675	3.00	1.44	0.48	694	2.88	1.38	0.48	723
25	24	3.35	1.21	0.36	664	3.23	1.16	0.36	701	3.15	1.13	0.36	723	3.05	1.10	0.36	759
26	18	2.94	2.23	0.76	584	2.81	2.14	0.76	613	2.70	2.05	0.76	642	2.60	1.98	0.76	672
26	20	3.06	1.96	0.64	613	2.94	1.88	0.64	650	2.85	1.82	0.64	664	2.75	1.76	0.64	694
26	22	3.19	1.66	0.52	635	3.08	1.60	0.52	675	3.00	1.56	0.52	694	2.88	1.50	0.52	723
26	24	3.35	1.34	0.40	664	3.23	1.29	0.40	701	3.15	1.26	0.40	723	3.05	1.22	0.40	759
26	26	3.45	0.97	0.28	701	3.35	0.94	0.28	737	3.30	0.92	0.28	759	3.20	0.90	0.28	781
27	18	2.94	2.35	0.80	584	2.81	2.25	0.80	613	2.70	2.16	0.80	642	2.60	2.08	0.80	672
27	20	3.06	2.08	0.68	613	2.94	2.00	0.68	650	2.85	1.94	0.68	664	2.75	1.87	0.68	694
27	22	3.19	1.79	0.56	635	3.08	1.72	0.56	675	3.00	1.68	0.56	694	2.88	1.61	0.56	723
27	24	3.35	1.47	0.44	664	3.23	1.42	0.44	701	3.15	1.39	0.44	723	3.05	1.34	0.44	759
27	26	3.45	1.10	0.32	701	3.35	1.07	0.32	737	3.30	1.06	0.32	759	3.20	1.02	0.32	781
28	18	2.94	2.47	0.84	584	2.81	2.36	0.84	613	2.70	2.27	0.84	642	2.60	2.18	0.84	672
28	20	3.06	2.21	0.72	613	2.94	2.12	0.72	650	2.85	2.05	0.72	664	2.75	1.98	0.72	694
28	22	3.19	1.91	0.60	635	3.08	1.85	0.60	675	3.00	1.80	0.60	694	2.88	1.73	0.60	723
28	24	3.35	1.61	0.48	664	3.23	1.55	0.48	701	3.15	1.51	0.48	723	3.05	1.46	0.48	759
28	26	3.45	1.24	0.36	701	3.35	1.21	0.36	737	3.30	1.19	0.36	759	3.20	1.15	0.36	781
29	18	2.94	2.59	0.88	584	2.81	2.48	0.88	613	2.70	2.38	0.88	642	2.60	2.29	0.88	672
29	20	3.06	2.33	0.76	613	2.94	2.23	0.76	650	2.85	2.17	0.76	664	2.75	2.09	0.76	694
29	22	3.19	2.04	0.64	635	3.08	1.97	0.64	675	3.00	1.92	0.64	694	2.88	1.84	0.64	723
29	24	3.35	1.74	0.52	664	3.23	1.68	0.52	701	3.15	1.64	0.52	723	3.05	1.59	0.52	759
29	26	3.45	1.38	0.40	701	3.35	1.34	0.40	737	3.30	1.32	0.40	759	3.20	1.28	0.40	781
30	18	2.94	2.70	0.92	584	2.81	2.59	0.92	613	2.70	2.48	0.92	642	2.60	2.39	0.92	672
30	20	3.06	2.45	0.80	613	2.94	2.35	0.80	650	2.85	2.28	0.80	664	2.75	2.20	0.80	694
30	22	3.19	2.17	0.68	635	3.08	2.09	0.68	675	3.00	2.04	0.68	694	2.88	1.96	0.68	723
30	24	3.35	1.88	0.56	664	3.23	1.81	0.56	701	3.15	1.76	0.56	723	3.05	1.71	0.56	759
30	26	3.45	1.52	0.44	701	3.35	1.47	0.44	737	3.30	1.45	0.44	759	3.20	1.41	0.44	781
31	18	2.94	2.82	0.96	584	2.81	2.70	0.96	613	2.70	2.59	0.96	642	2.60	2.50	0.96	672
31	20	3.06	2.57	0.84	613	2.94	2.47	0.84	650	2.85	2.39	0.84	664	2.75	2.31	0.84	694
31	22	3.19	2.30	0.72	635	3.08	2.21	0.72	675	3.00	2.16	0.72	694	2.88	2.07	0.72	723
31	24	3.35	2.01	0.60	664	3.23	1.94	0.60	701	3.15	1.89	0.60	723	3.05	1.83	0.60	759
31	26	3.45	1.66	0.48	701	3.35	1.61	0.48	737	3.30	1.58	0.48	759	3.20	1.54	0.48	781
32	18	2.94	2.94	1.00	584	2.81	2.81	1.00	613	2.70	2.70	1.00	642	2.60	2.60	1.00	672
32	20	3.06	2.70	0.88	613	2.94	2.59	0.88	650	2.85	2.51	0.88	664	2.75	2.42	0.88	694
32	22	3.19	2.42	0.76	635	3.08	2.34	0.76	675	3.00	2.28	0.76	694	2.88	2.19	0.76	723
32	24	3.35	2.14	0.64	664	3.23	2.06	0.64	701	3.15	2.02	0.64	723	3.05	1.95	0.64	759
32	26	3.45	1.79	0.52	701	3.35	1.74	0.52	737	3.30	1.72	0.52	759	3.20	1.66	0.52	781

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SEZ-KC25VA/SUZ-KA25VA(H)
CAPACITY : 2.5(kW) INPUT : 730(W) SHF : 0.74

		OUTDOOR D.B.(℃)											
INDOOR	INDOOR	35				40				46			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	2.45	1.37	0.56	715	2.25	1.26	0.56	759	2.08	1.16	0.56	788
21	20	2.58	1.13	0.44	745	2.40	1.06	0.44	781	2.23	0.98	0.44	825
22	18	2.45	1.47	0.60	715	2.25	1.35	0.60	759	2.08	1.25	0.60	788
22	20	2.58	1.24	0.48	745	2.40	1.15	0.48	781	2.23	1.07	0.48	825
22	22	2.73	0.98	0.36	774	2.55	0.92	0.36	818	2.38	0.86	0.36	847
23	18	2.45	1.57	0.64	715	2.25	1.44	0.64	759	2.08	1.33	0.64	788
23	20	2.58	1.34	0.52	745	2.40	1.25	0.52	781	2.23	1.16	0.52	825
23	22	2.73	1.09	0.40	774	2.55	1.02	0.40	818	2.38	0.95	0.40	847
24	18	2.45	1.67	0.68	715	2.25	1.53	0.68	759	2.08	1.41	0.68	788
24	20	2.58	1.44	0.56	745	2.40	1.34	0.56	781	2.23	1.25	0.56	825
24	22	2.73	1.20	0.44	774	2.55	1.12	0.44	818	2.38	1.05	0.44	847
24	24	2.88	0.92	0.32	803	2.70	0.86	0.32	840	2.55	0.82	0.32	876
25	20	2.58	1.55	0.60	745	2.40	1.44	0.60	781	2.23	1.34	0.60	825
25	22	2.73	1.31	0.48	774	2.55	1.22	0.48	818	2.38	1.14	0.48	847
25	24	2.88	1.04	0.36	803	2.70	0.97	0.36	840	2.55	0.92	0.36	876
26	18	2.45	1.86	0.76	715	2.25	1.71	0.76	759	2.08	1.58	0.76	788
26	20	2.58	1.65	0.64	745	2.40	1.54	0.64	781	2.23	1.42	0.64	825
26	22	2.73	1.42	0.52	774	2.55	1.33	0.52	818	2.38	1.24	0.52	847
26	24	2.88	1.15	0.40	803	2.70	1.08	0.40	840	2.55	1.02	0.40	876
26	26	3.03	0.85	0.28	832	2.85	0.80	0.28	869	2.68	0.75	0.28	905
27	18	2.45	1.96	0.80	715	2.25	1.80	0.80	759	2.08	1.66	0.80	788
27	20	2.58	1.75	0.68	745	2.40	1.63	0.68	781	2.23	1.51	0.68	825
27	22	2.73	1.53	0.56	774	2.55	1.43	0.56	818	2.38	1.33	0.56	847
27	24	2.88	1.27	0.44	803	2.70	1.19	0.44	840	2.55	1.12	0.44	876
27	26	3.03	0.97	0.32	832	2.85	0.91	0.32	869	2.68	0.86	0.32	905
28	18	2.45	2.06	0.84	715	2.25	1.89	0.84	759	2.08	1.74	0.84	788
28	20	2.58	1.85	0.72	745	2.40	1.73	0.72	781	2.23	1.60	0.72	825
28	22	2.73	1.64	0.60	774	2.55	1.53	0.60	818	2.38	1.43	0.60	847
28	24	2.88	1.38	0.48	803	2.70	1.30	0.48	840	2.55	1.22	0.48	876
28	26	3.03	1.09	0.36	832	2.85	1.03	0.36	869	2.68	0.96	0.36	905
29	18	2.45	2.16	0.88	715	2.25	1.98	0.88	759	2.08	1.83	0.88	788
29	20	2.58	1.96	0.76	745	2.40	1.82	0.76	781	2.23	1.69	0.76	825
29	22	2.73	1.74	0.64	774	2.55	1.63	0.64	818	2.38	1.52	0.64	847
29	24	2.88	1.50	0.52	803	2.70	1.40	0.52	840	2.55	1.33	0.52	876
29	26	3.03	1.21	0.40	832	2.85	1.14	0.40	869	2.68	1.07	0.40	905
30	18	2.45	2.25	0.92	715	2.25	2.07	0.92	759	2.08	1.91	0.92	788
30	20	2.58	2.06	0.80	745	2.40	1.92	0.80	781	2.23	1.78	0.80	825
30	22	2.73	1.85	0.68	774	2.55	1.73	0.68	818	2.38	1.62	0.68	847
30	24	2.88	1.61	0.56	803	2.70	1.51	0.56	840	2.55	1.43	0.56	876
30	26	3.03	1.33	0.44	832	2.85	1.25	0.44	869	2.68	1.18	0.44	905
31	18	2.45	2.35	0.96	715	2.25	2.16	0.96	759	2.08	1.99	0.96	788
31	20	2.58	2.16	0.84	745	2.40	2.02	0.84	781	2.23	1.87	0.84	825
31	22	2.73	1.96	0.72	774	2.55	1.84	0.72	818	2.38	1.71	0.72	847
31	24	2.88	1.73	0.60	803	2.70	1.62	0.60	840	2.55	1.53	0.60	876
31	26	3.03	1.45	0.48	832	2.85	1.37	0.48	869	2.68	1.28	0.48	905
32	18	2.45	2.45	1.00	715	2.25	2.25	1.00	759	2.08	2.08	1.00	788
32	20	2.58	2.27	0.88	745	2.40	2.11	0.88	781	2.23	1.96	0.88	825
32	22	2.73	2.07	0.76	774	2.55	1.94	0.76	818	2.38	1.81	0.76	847
32	24	2.88	1.84	0.64	803	2.70	1.73	0.64	840	2.55	1.63	0.64	876
32	26	3.03	1.57	0.52	832	2.85	1.48	0.52	869	2.68	1.39	0.52	905

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SEZ-KA35VA/SUZ-KA35VA(H)
CAPACITY : 3.5(kW) INPUT : 1060(W) SHF : 0.77

		OUTDOOR D.B.(℃)															
INDOOR	INDOOR	21				25				27				30			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.11	2.43	0.59	848	3.94	2.32	0.59	890	3.78	2.23	0.59	933	3.64	2.15	0.59	975
21	20	4.29	2.02	0.47	890	4.11	1.93	0.47	943	3.99	1.88	0.47	965	3.85	1.81	0.47	1007
22	18	4.11	2.59	0.63	848	3.94	2.48	0.63	890	3.78	2.38	0.63	933	3.64	2.29	0.63	975
22	20	4.29	2.19	0.51	890	4.11	2.10	0.51	943	3.99	2.03	0.51	965	3.85	1.96	0.51	1007
22	22	4.46	1.74	0.39	922	4.31	1.68	0.39	981	4.20	1.64	0.39	1007	4.03	1.57	0.39	1049
23	18	4.11	2.76	0.67	848	3.94	2.64	0.67	890	3.78	2.53	0.67	933	3.64	2.44	0.67	975
23	20	4.29	2.36	0.55	890	4.11	2.26	0.55	943	3.99	2.19	0.55	965	3.85	2.12	0.55	1007
23	22	4.46	1.92	0.43	922	4.31	1.85	0.43	981	4.20	1.81	0.43	1007	4.03	1.73	0.43	1049
24	18	4.11	2.92	0.71	848	3.94	2.80	0.71	890	3.78	2.68	0.71	933	3.64	2.58	0.71	975
24	20	4.29	2.53	0.59	890	4.11	2.43	0.59	943	3.99	2.35	0.59	965	3.85	2.27	0.59	1007
24	22	4.46	2.10	0.47	922	4.31	2.02	0.47	981	4.20	1.97	0.47	1007	4.03	1.89	0.47	1049
24	24	4.69	1.64	0.35	965	4.52	1.58	0.35	1018	4.41	1.54	0.35	1049	4.27	1.49	0.35	1102
25	20	4.29	2.70	0.63	890	4.11	2.59	0.63	943	3.99	2.51	0.63	965	3.85	2.43	0.63	1007
25	22	4.46	2.28	0.51	922	4.31	2.20	0.51	981	4.20	2.14	0.51	1007	4.03	2.05	0.51	1049
25	24	4.69	1.83	0.39	965	4.52	1.76	0.39	1018	4.41	1.72	0.39	1049	4.27	1.67	0.39	1102
26	18	4.11	3.25	0.79	848	3.94	3.11	0.79	890	3.78	2.99	0.79	933	3.64	2.88	0.79	975
26	20	4.29	2.87	0.67	890	4.11	2.76	0.67	943	3.99	2.67	0.67	965	3.85	2.58	0.67	1007
26	22	4.46	2.45	0.55	922	4.31	2.37	0.55	981	4.20	2.31	0.55	1007	4.03	2.21	0.55	1049
26	24	4.69	2.02	0.43	965	4.52	1.94	0.43	1018	4.41	1.90	0.43	1049	4.27	1.84	0.43	1102
26	26	4.83	1.50	0.31	1018	4.69	1.45	0.31	1071	4.62	1.43	0.31	1102	4.48	1.39	0.31	1134
27	18	4.11	3.41	0.83	848	3.94	3.27	0.83	890	3.78	3.14	0.83	933	3.64	3.02	0.83	975
27	20	4.29	3.04	0.71	890	4.11	2.92	0.71	943	3.99	2.83	0.71	965	3.85	2.73	0.71	1007
27	22	4.46	2.63	0.59	922	4.31	2.54	0.59	981	4.20	2.48	0.59	1007	4.03	2.37	0.59	1049
27	24	4.69	2.20	0.47	965	4.52	2.12	0.47	1018	4.41	2.07	0.47	1049	4.27	2.01	0.47	1102
27	26	4.83	1.69	0.35	1018	4.69	1.64	0.35	1071	4.62	1.62	0.35	1102	4.48	1.57	0.35	1134
28	18	4.11	3.58	0.87	848	3.94	3.43	0.87	890	3.78	3.29	0.87	933	3.64	3.17	0.87	975
28	20	4.29	3.22	0.75	890	4.11	3.08	0.75	943	3.99	2.99	0.75	965	3.85	2.89	0.75	1007
28	22	4.46	2.81	0.63	922	4.31	2.71	0.63	981	4.20	2.65	0.63	1007	4.03	2.54	0.63	1049
28	24	4.69	2.39	0.51	965	4.52	2.30	0.51	1018	4.41	2.25	0.51	1049	4.27	2.18	0.51	1102
28	26	4.83	1.88	0.39	1018	4.69	1.83	0.39	1071	4.62	1.80	0.39	1102	4.48	1.75	0.39	1134
29	18	4.11	3.74	0.91	848	3.94	3.58	0.91	890	3.78	3.44	0.91	933	3.64	3.31	0.91	975
29	20	4.29	3.39	0.79	890	4.11	3.25	0.79	943	3.99	3.15	0.79	965	3.85	3.04	0.79	1007
29	22	4.46	2.99	0.67	922	4.31	2.88	0.67	981	4.20	2.81	0.67	1007	4.03	2.70	0.67	1049
29	24	4.69	2.58	0.55	965	4.52	2.48	0.55	1018	4.41	2.43	0.55	1049	4.27	2.35	0.55	1102
29	26	4.83	2.08	0.43	1018	4.69	2.02	0.43	1071	4.62	1.99	0.43	1102	4.48	1.93	0.43	1134
30	18	4.11	3.91	0.95	848	3.94	3.74	0.95	890	3.78	3.59	0.95	933	3.64	3.46	0.95	975
30	20	4.29	3.56	0.83	890	4.11	3.41	0.83	943	3.99	3.31	0.83	965	3.85	3.20	0.83	1007
30	22	4.46	3.17	0.71	922	4.31	3.06	0.71	981	4.20	2.98	0.71	1007	4.03	2.86	0.71	1049
30	24	4.69	2.77	0.59	965	4.52	2.66	0.59	1018	4.41	2.60	0.59	1049	4.27	2.52	0.59	1102
30	26	4.83	2.27	0.47	1018	4.69	2.20	0.47	1071	4.62	2.17	0.47	1102	4.48	2.11	0.47	1134
31	18	4.11	4.07	0.99	848	3.94	3.90	0.99	890	3.78	3.74	0.99	933	3.64	3.60	0.99	975
31	20	4.29	3.73	0.87	890	4.11	3.58	0.87	943	3.99	3.47	0.87	965	3.85	3.35	0.87	1007
31	22	4.46	3.35	0.75	922	4.31	3.23	0.75	981	4.20	3.15	0.75	1007	4.03	3.02	0.75	1049
31	24	4.69	2.95	0.63	965	4.52	2.84	0.63	1018	4.41	2.78	0.63	1049	4.27	2.69	0.63	1102
31	26	4.83	2.46	0.51	1018	4.69	2.39	0.51	1071	4.62	2.36	0.51	1102	4.48	2.28	0.51	1134
32	18	4.11	4.11	1.00	848	3.94	3.94	1.00	890	3.78	3.78	1.00	933	3.64	3.64	1.00	975
32	20	4.29	3.90	0.91	890	4.11	3.74	0.91	943	3.99	3.63	0.91	965	3.85	3.50	0.91	1007
32	22	4.46	3.53	0.79	922	4.31	3.40	0.79	981	4.20	3.32	0.79	1007	4.03	3.18	0.79	1049
32	24	4.69	3.14	0.67	965	4.52	3.03	0.67	1018	4.41	2.95	0.67	1049	4.27	2.86	0.67	1102
32	26	4.83	2.66	0.55	1018	4.69	2.58	0.55	1071	4.62	2.54	0.55	1102	4.48	2.46	0.55	1134

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SEZ-KA35VA/SUZ-KA35VA(H)
CAPACITY : 3.5(kW) INPUT : 1060(W) SHF : 0.77

		OUTDOOR D.B.(℃)											
INDOOR	INDOOR	35				40				46			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	3.43	2.02	0.59	1039	3.15	1.86	0.59	1102	2.91	1.71	0.59	1145
21	20	3.61	1.69	0.47	1081	3.36	1.58	0.47	1134	3.12	1.46	0.47	1198
22	18	3.43	2.16	0.63	1039	3.15	1.98	0.63	1102	2.91	1.83	0.63	1145
22	20	3.61	1.84	0.51	1081	3.36	1.71	0.51	1134	3.12	1.59	0.51	1198
22	22	3.82	1.49	0.39	1124	3.57	1.39	0.39	1187	3.33	1.30	0.39	1230
23	18	3.43	2.30	0.67	1039	3.15	2.11	0.67	1102	2.91	1.95	0.67	1145
23	20	3.61	1.98	0.55	1081	3.36	1.85	0.55	1134	3.12	1.71	0.55	1198
23	22	3.82	1.64	0.43	1124	3.57	1.54	0.43	1187	3.33	1.43	0.43	1230
24	18	3.43	2.44	0.71	1039	3.15	2.24	0.71	1102	2.91	2.06	0.71	1145
24	20	3.61	2.13	0.59	1081	3.36	1.98	0.59	1134	3.12	1.84	0.59	1198
24	22	3.82	1.79	0.47	1124	3.57	1.68	0.47	1187	3.33	1.56	0.47	1230
24	24	4.03	1.41	0.35	1166	3.78	1.32	0.35	1219	3.57	1.25	0.35	1272
25	20	3.61	2.27	0.63	1081	3.36	2.12	0.63	1134	3.12	1.96	0.63	1198
25	22	3.82	1.95	0.51	1124	3.57	1.82	0.51	1187	3.33	1.70	0.51	1230
25	24	4.03	1.57	0.39	1166	3.78	1.47	0.39	1219	3.57	1.39	0.39	1272
26	18	3.43	2.71	0.79	1039	3.15	2.49	0.79	1102	2.91	2.29	0.79	1145
26	20	3.61	2.42	0.67	1081	3.36	2.25	0.67	1134	3.12	2.09	0.67	1198
26	22	3.82	2.10	0.55	1124	3.57	1.96	0.55	1187	3.33	1.83	0.55	1230
26	24	4.03	1.73	0.43	1166	3.78	1.63	0.43	1219	3.57	1.54	0.43	1272
26	26	4.24	1.31	0.31	1208	3.99	1.24	0.31	1261	3.75	1.16	0.31	1314
27	18	3.43	2.85	0.83	1039	3.15	2.61	0.83	1102	2.91	2.41	0.83	1145
27	20	3.61	2.56	0.71	1081	3.36	2.39	0.71	1134	3.12	2.21	0.71	1198
27	22	3.82	2.25	0.59	1124	3.57	2.11	0.59	1187	3.33	1.96	0.59	1230
27	24	4.03	1.89	0.47	1166	3.78	1.78	0.47	1219	3.57	1.68	0.47	1272
27	26	4.24	1.48	0.35	1208	3.99	1.40	0.35	1261	3.75	1.31	0.35	1314
28	18	3.43	2.98	0.87	1039	3.15	2.74	0.87	1102	2.91	2.53	0.87	1145
28	20	3.61	2.70	0.75	1081	3.36	2.52	0.75	1134	3.12	2.34	0.75	1198
28	22	3.82	2.40	0.63	1124	3.57	2.25	0.63	1187	3.33	2.09	0.63	1230
28	24	4.03	2.05	0.51	1166	3.78	1.93	0.51	1219	3.57	1.82	0.51	1272
28	26	4.24	1.65	0.39	1208	3.99	1.56	0.39	1261	3.75	1.46	0.39	1314
29	18	3.43	3.12	0.91	1039	3.15	2.87	0.91	1102	2.91	2.64	0.91	1145
29	20	3.61	2.85	0.79	1081	3.36	2.65	0.79	1134	3.12	2.46	0.79	1198
29	22	3.82	2.56	0.67	1124	3.57	2.39	0.67	1187	3.33	2.23	0.67	1230
29	24	4.03	2.21	0.55	1166	3.78	2.08	0.55	1219	3.57	1.96	0.55	1272
29	26	4.24	1.82	0.43	1208	3.99	1.72	0.43	1261	3.75	1.61	0.43	1314
30	18	3.43	3.26	0.95	1039	3.15	2.99	0.95	1102	2.91	2.76	0.95	1145
30	20	3.61	2.99	0.83	1081	3.36	2.79	0.83	1134	3.12	2.59	0.83	1198
30	22	3.82	2.71	0.71	1124	3.57	2.53	0.71	1187	3.33	2.36	0.71	1230
30	24	4.03	2.37	0.59	1166	3.78	2.23	0.59	1219	3.57	2.11	0.59	1272
30	26	4.24	1.99	0.47	1208	3.99	1.88	0.47	1261	3.75	1.76	0.47	1314
31	18	3.43	3.40	0.99	1039	3.15	3.12	0.99	1102	2.91	2.88	0.99	1145
31	20	3.61	3.14	0.87	1081	3.36	2.92	0.87	1134	3.12	2.71	0.87	1198
31	22	3.82	2.86	0.75	1124	3.57	2.68	0.75	1187	3.33	2.49	0.75	1230
31	24	4.03	2.54	0.63	1166	3.78	2.38	0.63	1219	3.57	2.25	0.63	1272
31	26	4.24	2.16	0.51	1208	3.99	2.03	0.51	1261	3.75	1.91	0.51	1314
32	18	3.43	3.43	1.00	1039	3.15	3.15	1.00	1102	2.91	2.91	1.00	1145
32	20	3.61	3.28	0.91	1081	3.36	3.06	0.91	1134	3.12	2.83	0.91	1198
32	22	3.82	3.01	0.79	1124	3.57	2.82	0.79	1187	3.33	2.63	0.79	1230
32	24	4.03	2.70	0.67	1166	3.78	2.53	0.67	1219	3.57	2.39	0.67	1272
32	26	4.24	2.33	0.55	1208	3.99	2.19	0.55	1261	3.75	2.06	0.55	1314

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SEZ-KA50VA/SUZ-KA50VA
CAPACITY : 5.0(kW) INPUT : 1780(W) SHF : 0.75

		OUTDOOR D.B.(℃)															
INDOOR	INDOOR	21				25				27				30			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	5.88	3.35	0.57	1424	5.63	3.21	0.57	1495	5.40	3.08	0.57	1566	5.20	2.96	0.57	1638
21	20	6.13	2.76	0.45	1495	5.88	2.64	0.45	1584	5.70	2.57	0.45	1620	5.50	2.48	0.45	1691
22	18	5.88	3.58	0.61	1424	5.63	3.43	0.61	1495	5.40	3.29	0.61	1566	5.20	3.17	0.61	1638
22	20	6.13	3.00	0.49	1495	5.88	2.88	0.49	1584	5.70	2.79	0.49	1620	5.50	2.70	0.49	1691
22	22	6.38	2.36	0.37	1549	6.15	2.28	0.37	1647	6.00	2.22	0.37	1691	5.75	2.13	0.37	1762
23	18	5.88	3.82	0.65	1424	5.63	3.66	0.65	1495	5.40	3.51	0.65	1566	5.20	3.38	0.65	1638
23	20	6.13	3.25	0.53	1495	5.88	3.11	0.53	1584	5.70	3.02	0.53	1620	5.50	2.92	0.53	1691
23	22	6.38	2.61	0.41	1549	6.15	2.52	0.41	1647	6.00	2.46	0.41	1691	5.75	2.36	0.41	1762
24	18	5.88	4.05	0.69	1424	5.63	3.88	0.69	1495	5.40	3.73	0.69	1566	5.20	3.59	0.69	1638
24	20	6.13	3.49	0.57	1495	5.88	3.35	0.57	1584	5.70	3.25	0.57	1620	5.50	3.14	0.57	1691
24	22	6.38	2.87	0.45	1549	6.15	2.77	0.45	1647	6.00	2.70	0.45	1691	5.75	2.59	0.45	1762
24	24	6.70	2.21	0.33	1620	6.45	2.13	0.33	1709	6.30	2.08	0.33	1762	6.10	2.01	0.33	1851
25	20	6.13	3.74	0.61	1495	5.88	3.58	0.61	1584	5.70	3.48	0.61	1620	5.50	3.36	0.61	1691
25	22	6.38	3.12	0.49	1549	6.15	3.01	0.49	1647	6.00	2.94	0.49	1691	5.75	2.82	0.49	1762
25	24	6.70	2.48	0.37	1620	6.45	2.39	0.37	1709	6.30	2.33	0.37	1762	6.10	2.26	0.37	1851
26	18	5.88	4.52	0.77	1424	5.63	4.33	0.77	1495	5.40	4.16	0.77	1566	5.20	4.00	0.77	1638
26	20	6.13	3.98	0.65	1495	5.88	3.82	0.65	1584	5.70	3.71	0.65	1620	5.50	3.58	0.65	1691
26	22	6.38	3.38	0.53	1549	6.15	3.26	0.53	1647	6.00	3.18	0.53	1691	5.75	3.05	0.53	1762
26	24	6.70	2.75	0.41	1620	6.45	2.64	0.41	1709	6.30	2.58	0.41	1762	6.10	2.50	0.41	1851
26	26	6.90	2.00	0.29	1709	6.70	1.94	0.29	1798	6.60	1.91	0.29	1851	6.40	1.86	0.29	1905
27	18	5.88	4.76	0.81	1424	5.63	4.56	0.81	1495	5.40	4.37	0.81	1566	5.20	4.21	0.81	1638
27	20	6.13	4.23	0.69	1495	5.88	4.05	0.69	1584	5.70	3.93	0.69	1620	5.50	3.80	0.69	1691
27	22	6.38	3.63	0.57	1549	6.15	3.51	0.57	1647	6.00	3.42	0.57	1691	5.75	3.28	0.57	1762
27	24	6.70	3.02	0.45	1620	6.45	2.90	0.45	1709	6.30	2.84	0.45	1762	6.10	2.75	0.45	1851
27	26	6.90	2.28	0.33	1709	6.70	2.21	0.33	1798	6.60	2.18	0.33	1851	6.40	2.11	0.33	1905
28	18	5.88	4.99	0.85	1424	5.63	4.78	0.85	1495	5.40	4.59	0.85	1566	5.20	4.42	0.85	1638
28	20	6.13	4.47	0.73	1495	5.88	4.29	0.73	1584	5.70	4.16	0.73	1620	5.50	4.02	0.73	1691
28	22	6.38	3.89	0.61	1549	6.15	3.75	0.61	1647	6.00	3.66	0.61	1691	5.75	3.51	0.61	1762
28	24	6.70	3.28	0.49	1620	6.45	3.16	0.49	1709	6.30	3.09	0.49	1762	6.10	2.99	0.49	1851
28	26	6.90	2.55	0.37	1709	6.70	2.48	0.37	1798	6.60	2.44	0.37	1851	6.40	2.37	0.37	1905
29	18	5.88	5.23	0.89	1424	5.63	5.01	0.89	1495	5.40	4.81	0.89	1566	5.20	4.63	0.89	1638
29	20	6.13	4.72	0.77	1495	5.88	4.52	0.77	1584	5.70	4.39	0.77	1620	5.50	4.24	0.77	1691
29	22	6.38	4.14	0.65	1549	6.15	4.00	0.65	1647	6.00	3.90	0.65	1691	5.75	3.74	0.65	1762
29	24	6.70	3.55	0.53	1620	6.45	3.42	0.53	1709	6.30	3.34	0.53	1762	6.10	3.23	0.53	1851
29	26	6.90	2.83	0.41	1709	6.70	2.75	0.41	1798	6.60	2.71	0.41	1851	6.40	2.62	0.41	1905
30	18	5.88	5.46	0.93	1424	5.63	5.23	0.93	1495	5.40	5.02	0.93	1566	5.20	4.84	0.93	1638
30	20	6.13	4.96	0.81	1495	5.88	4.76	0.81	1584	5.70	4.62	0.81	1620	5.50	4.46	0.81	1691
30	22	6.38	4.40	0.69	1549	6.15	4.24	0.69	1647	6.00	4.14	0.69	1691	5.75	3.97	0.69	1762
30	24	6.70	3.82	0.57	1620	6.45	3.68	0.57	1709	6.30	3.59	0.57	1762	6.10	3.48	0.57	1851
30	26	6.90	3.11	0.45	1709	6.70	3.02	0.45	1798	6.60	2.97	0.45	1851	6.40	2.88	0.45	1905
31	18	5.88	5.70	0.97	1424	5.63	5.46	0.97	1495	5.40	5.24	0.97	1566	5.20	5.04	0.97	1638
31	20	6.13	5.21	0.85	1495	5.88	4.99	0.85	1584	5.70	4.85	0.85	1620	5.50	4.68	0.85	1691
31	22	6.38	4.65	0.73	1549	6.15	4.49	0.73	1647	6.00	4.38	0.73	1691	5.75	4.20	0.73	1762
31	24	6.70	4.09	0.61	1620	6.45	3.93	0.61	1709	6.30	3.84	0.61	1762	6.10	3.72	0.61	1851
31	26	6.90	3.38	0.49	1709	6.70	3.28	0.49	1798	6.60	3.23	0.49	1851	6.40	3.14	0.49	1905
32	18	5.88	5.88	1.00	1424	5.63	5.63	1.00	1495	5.40	5.40	1.00	1566	5.20	5.20	1.00	1638
32	20	6.13	5.45	0.89	1495	5.88	5.23	0.89	1584	5.70	5.07	0.89	1620	5.50	4.90	0.89	1691
32	22	6.38	4.91	0.77	1549	6.15	4.74	0.77	1647	6.00	4.62	0.77	1691	5.75	4.43	0.77	1762
32	24	6.70	4.36	0.65	1620	6.45	4.19	0.65	1709	6.30	4.10	0.65	1762	6.10	3.97	0.65	1851
32	26	6.90	3.66	0.53	1709	6.70	3.55	0.53	1798	6.60	3.50	0.53	1851	6.40	3.39	0.53	1905

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SEZ-KA50VA/SUZ-KA50VA
CAPACITY : 5.0(kW) INPUT : 1780(W) SHF : 0.75

		OUTDOOR D.B.(℃)											
INDOOR	INDOOR	35				40				46			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.90	2.79	0.57	1744	4.50	2.57	0.57	1851	4.15	2.37	0.57	1922
21	20	5.15	2.32	0.45	1816	4.80	2.16	0.45	1905	4.45	2.00	0.45	2011
22	18	4.90	2.99	0.61	1744	4.50	2.75	0.61	1851	4.15	2.53	0.61	1922
22	20	5.15	2.52	0.49	1816	4.80	2.35	0.49	1905	4.45	2.18	0.49	2011
22	22	5.45	2.02	0.37	1887	5.10	1.89	0.37	1994	4.75	1.76	0.37	2065
23	18	4.90	3.19	0.65	1744	4.50	2.93	0.65	1851	4.15	2.70	0.65	1922
23	20	5.15	2.73	0.53	1816	4.80	2.54	0.53	1905	4.45	2.36	0.53	2011
23	22	5.45	2.23	0.41	1887	5.10	2.09	0.41	1994	4.75	1.95	0.41	2065
24	18	4.90	3.38	0.69	1744	4.50	3.11	0.69	1851	4.15	2.86	0.69	1922
24	20	5.15	2.94	0.57	1816	4.80	2.74	0.57	1905	4.45	2.54	0.57	2011
24	22	5.45	2.45	0.45	1887	5.10	2.30	0.45	1994	4.75	2.14	0.45	2065
24	24	5.75	1.90	0.33	1958	5.40	1.78	0.33	2047	5.10	1.68	0.33	2136
25	20	5.15	3.14	0.61	1816	4.80	2.93	0.61	1905	4.45	2.71	0.61	2011
25	22	5.45	2.67	0.49	1887	5.10	2.50	0.49	1994	4.75	2.33	0.49	2065
25	24	5.75	2.13	0.37	1958	5.40	2.00	0.37	2047	5.10	1.89	0.37	2136
26	18	4.90	3.77	0.77	1744	4.50	3.47	0.77	1851	4.15	3.20	0.77	1922
26	20	5.15	3.35	0.65	1816	4.80	3.12	0.65	1905	4.45	2.89	0.65	2011
26	22	5.45	2.89	0.53	1887	5.10	2.70	0.53	1994	4.75	2.52	0.53	2065
26	24	5.75	2.36	0.41	1958	5.40	2.21	0.41	2047	5.10	2.09	0.41	2136
26	26	6.05	1.75	0.29	2029	5.70	1.65	0.29	2118	5.35	1.55	0.29	2207
27	18	4.90	3.97	0.81	1744	4.50	3.65	0.81	1851	4.15	3.36	0.81	1922
27	20	5.15	3.55	0.69	1816	4.80	3.31	0.69	1905	4.45	3.07	0.69	2011
27	22	5.45	3.11	0.57	1887	5.10	2.91	0.57	1994	4.75	2.71	0.57	2065
27	24	5.75	2.59	0.45	1958	5.40	2.43	0.45	2047	5.10	2.30	0.45	2136
27	26	6.05	2.00	0.33	2029	5.70	1.88	0.33	2118	5.35	1.77	0.33	2207
28	18	4.90	4.17	0.85	1744	4.50	3.83	0.85	1851	4.15	3.53	0.85	1922
28	20	5.15	3.76	0.73	1816	4.80	3.50	0.73	1905	4.45	3.25	0.73	2011
28	22	5.45	3.32	0.61	1887	5.10	3.11	0.61	1994	4.75	2.90	0.61	2065
28	24	5.75	2.82	0.49	1958	5.40	2.65	0.49	2047	5.10	2.50	0.49	2136
28	26	6.05	2.24	0.37	2029	5.70	2.11	0.37	2118	5.35	1.98	0.37	2207
29	18	4.90	4.36	0.89	1744	4.50	4.01	0.89	1851	4.15	3.69	0.89	1922
29	20	5.15	3.97	0.77	1816	4.80	3.70	0.77	1905	4.45	3.43	0.77	2011
29	22	5.45	3.54	0.65	1887	5.10	3.32	0.65	1994	4.75	3.09	0.65	2065
29	24	5.75	3.05	0.53	1958	5.40	2.86	0.53	2047	5.10	2.70	0.53	2136
29	26	6.05	2.48	0.41	2029	5.70	2.34	0.41	2118	5.35	2.19	0.41	2207
30	18	4.90	4.56	0.93	1744	4.50	4.19	0.93	1851	4.15	3.86	0.93	1922
30	20	5.15	4.17	0.81	1816	4.80	3.89	0.81	1905	4.45	3.60	0.81	2011
30	22	5.45	3.76	0.69	1887	5.10	3.52	0.69	1994	4.75	3.28	0.69	2065
30	24	5.75	3.28	0.57	1958	5.40	3.08	0.57	2047	5.10	2.91	0.57	2136
30	26	6.05	2.72	0.45	2029	5.70	2.57	0.45	2118	5.35	2.41	0.45	2207
31	18	4.90	4.75	0.97	1744	4.50	4.37	0.97	1851	4.15	4.03	0.97	1922
31	20	5.15	4.38	0.85	1816	4.80	4.08	0.85	1905	4.45	3.78	0.85	2011
31	22	5.45	3.98	0.73	1887	5.10	3.72	0.73	1994	4.75	3.47	0.73	2065
31	24	5.75	3.51	0.61	1958	5.40	3.29	0.61	2047	5.10	3.11	0.61	2136
31	26	6.05	2.96	0.49	2029	5.70	2.79	0.49	2118	5.35	2.62	0.49	2207
32	18	4.90	4.90	1.00	1744	4.50	4.50	1.00	1851	4.15	4.15	1.00	1922
32	20	5.15	4.58	0.89	1816	4.80	4.27	0.89	1905	4.45	3.96	0.89	2011
32	22	5.45	4.20	0.77	1887	5.10	3.93	0.77	1994	4.75	3.66	0.77	2065
32	24	5.75	3.74	0.65	1958	5.40	3.51	0.65	2047	5.10	3.32	0.65	2136
32	26	6.05	3.21	0.53	2029	5.70	3.02	0.53	2118	5.35	2.84	0.53	2207

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SEZ-KA60VA/SUZ-KA60VA
CAPACITY : 5.5(kW) INPUT : 1960(W) SHF : 0.75

		OUTDOOR D.B.(℃)															
INDOOR	INDOOR	21				25				27				30			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	6.46	3.68	0.57	1568	6.19	3.53	0.57	1646	5.94	3.39	0.57	1725	5.72	3.26	0.57	1803
21	20	6.74	3.03	0.45	1646	6.46	2.91	0.45	1744	6.27	2.82	0.45	1784	6.05	2.72	0.45	1862
22	18	6.46	3.94	0.61	1568	6.19	3.77	0.61	1646	5.94	3.62	0.61	1725	5.72	3.49	0.61	1803
22	20	6.74	3.30	0.49	1646	6.46	3.17	0.49	1744	6.27	3.07	0.49	1784	6.05	2.96	0.49	1862
22	22	7.01	2.59	0.37	1705	6.77	2.50	0.37	1813	6.60	2.44	0.37	1862	6.33	2.34	0.37	1940
23	18	6.46	4.20	0.65	1568	6.19	4.02	0.65	1646	5.94	3.86	0.65	1725	5.72	3.72	0.65	1803
23	20	6.74	3.57	0.53	1646	6.46	3.43	0.53	1744	6.27	3.32	0.53	1784	6.05	3.21	0.53	1862
23	22	7.01	2.88	0.41	1705	6.77	2.77	0.41	1813	6.60	2.71	0.41	1862	6.33	2.59	0.41	1940
24	18	6.46	4.46	0.69	1568	6.19	4.27	0.69	1646	5.94	4.10	0.69	1725	5.72	3.95	0.69	1803
24	20	6.74	3.84	0.57	1646	6.46	3.68	0.57	1744	6.27	3.57	0.57	1784	6.05	3.45	0.57	1862
24	22	7.01	3.16	0.45	1705	6.77	3.04	0.45	1813	6.60	2.97	0.45	1862	6.33	2.85	0.45	1940
24	24	7.37	2.43	0.33	1784	7.10	2.34	0.33	1882	6.93	2.29	0.33	1940	6.71	2.21	0.33	2038
25	20	6.74	4.11	0.61	1646	6.46	3.94	0.61	1744	6.27	3.82	0.61	1784	6.05	3.69	0.61	1862
25	22	7.01	3.44	0.49	1705	6.77	3.31	0.49	1813	6.60	3.23	0.49	1862	6.33	3.10	0.49	1940
25	24	7.37	2.73	0.37	1784	7.10	2.63	0.37	1882	6.93	2.56	0.37	1940	6.71	2.48	0.37	2038
26	18	6.46	4.98	0.77	1568	6.19	4.76	0.77	1646	5.94	4.57	0.77	1725	5.72	4.40	0.77	1803
26	20	6.74	4.38	0.65	1646	6.46	4.20	0.65	1744	6.27	4.08	0.65	1784	6.05	3.93	0.65	1862
26	22	7.01	3.72	0.53	1705	6.77	3.59	0.53	1813	6.60	3.50	0.53	1862	6.33	3.35	0.53	1940
26	24	7.37	3.02	0.41	1784	7.10	2.91	0.41	1882	6.93	2.84	0.41	1940	6.71	2.75	0.41	2038
26	26	7.59	2.20	0.29	1882	7.37	2.14	0.29	1980	7.26	2.11	0.29	2038	7.04	2.04	0.29	2097
27	18	6.46	5.23	0.81	1568	6.19	5.01	0.81	1646	5.94	4.81	0.81	1725	5.72	4.63	0.81	1803
27	20	6.74	4.65	0.69	1646	6.46	4.46	0.69	1744	6.27	4.33	0.69	1784	6.05	4.17	0.69	1862
27	22	7.01	4.00	0.57	1705	6.77	3.86	0.57	1813	6.60	3.76	0.57	1862	6.33	3.61	0.57	1940
27	24	7.37	3.32	0.45	1784	7.10	3.19	0.45	1882	6.93	3.12	0.45	1940	6.71	3.02	0.45	2038
27	26	7.59	2.50	0.33	1882	7.37	2.43	0.33	1980	7.26	2.40	0.33	2038	7.04	2.32	0.33	2097
28	18	6.46	5.49	0.85	1568	6.19	5.26	0.85	1646	5.94	5.05	0.85	1725	5.72	4.86	0.85	1803
28	20	6.74	4.92	0.73	1646	6.46	4.72	0.73	1744	6.27	4.58	0.73	1784	6.05	4.42	0.73	1862
28	22	7.01	4.28	0.61	1705	6.77	4.13	0.61	1813	6.60	4.03	0.61	1862	6.33	3.86	0.61	1940
28	24	7.37	3.61	0.49	1784	7.10	3.48	0.49	1882	6.93	3.40	0.49	1940	6.71	3.29	0.49	2038
28	26	7.59	2.81	0.37	1882	7.37	2.73	0.37	1980	7.26	2.69	0.37	2038	7.04	2.60	0.37	2097
29	18	6.46	5.75	0.89	1568	6.19	5.51	0.89	1646	5.94	5.29	0.89	1725	5.72	5.09	0.89	1803
29	20	6.74	5.19	0.77	1646	6.46	4.98	0.77	1744	6.27	4.83	0.77	1784	6.05	4.66	0.77	1862
29	22	7.01	4.56	0.65	1705	6.77	4.40	0.65	1813	6.60	4.29	0.65	1862	6.33	4.11	0.65	1940
29	24	7.37	3.91	0.53	1784	7.10	3.76	0.53	1882	6.93	3.67	0.53	1940	6.71	3.56	0.53	2038
29	26	7.59	3.11	0.41	1882	7.37	3.02	0.41	1980	7.26	2.98	0.41	2038	7.04	2.89	0.41	2097
30	18	6.46	6.01	0.93	1568	6.19	5.75	0.93	1646	5.94	5.52	0.93	1725	5.72	5.32	0.93	1803
30	20	6.74	5.46	0.81	1646	6.46	5.23	0.81	1744	6.27	5.08	0.81	1784	6.05	4.90	0.81	1862
30	22	7.01	4.84	0.69	1705	6.77	4.67	0.69	1813	6.60	4.55	0.69	1862	6.33	4.36	0.69	1940
30	24	7.37	4.20	0.57	1784	7.10	4.04	0.57	1882	6.93	3.95	0.57	1940	6.71	3.82	0.57	2038
30	26	7.59	3.42	0.45	1882	7.37	3.32	0.45	1980	7.26	3.27	0.45	2038	7.04	3.17	0.45	2097
31	18	6.46	6.27	0.97	1568	6.19	6.00	0.97	1646	5.94	5.76	0.97	1725	5.72	5.55	0.97	1803
31	20	6.74	5.73	0.85	1646	6.46	5.49	0.85	1744	6.27	5.33	0.85	1784	6.05	5.14	0.85	1862
31	22	7.01	5.12	0.73	1705	6.77	4.94	0.73	1813	6.60	4.82	0.73	1862	6.33	4.62	0.73	1940
31	24	7.37	4.50	0.61	1784	7.10	4.33	0.61	1882	6.93	4.23	0.61	1940	6.71	4.09	0.61	2038
31	26	7.59	3.72	0.49	1882	7.37	3.61	0.49	1980	7.26	3.56	0.49	2038	7.04	3.45	0.49	2097
32	18	6.46	6.46	1.00	1568	6.19	6.19	1.00	1646	5.94	5.94	1.00	1725	5.72	5.72	1.00	1803
32	20	6.74	6.00	0.89	1646	6.46	5.75	0.89	1744	6.27	5.58	0.89	1784	6.05	5.38	0.89	1862
32	22	7.01	5.40	0.77	1705	6.77	5.21	0.77	1813	6.60	5.08	0.77	1862	6.33	4.87	0.77	1940
32	24	7.37	4.79	0.65	1784	7.10	4.61	0.65	1882	6.93	4.50	0.65	1940	6.71	4.36	0.65	2038
32	26	7.59	4.02	0.53	1882	7.37	3.91	0.53	1980	7.26	3.85	0.53	2038	7.04	3.73	0.53	2097

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SEZ-KA60VA/SUZ-KA60VA
CAPACITY : 5.5(kW) INPUT : 1960(W) SHF : 0.75

		OUTDOOR D.B.(℃)											
INDOOR	INDOOR	35				40				46			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	5.39	3.07	0.57	1921	4.95	2.82	0.57	2038	4.57	2.60	0.57	2117
21	20	5.67	2.55	0.45	1999	5.28	2.38	0.45	2097	4.90	2.20	0.45	2215
22	18	5.39	3.29	0.61	1921	4.95	3.02	0.61	2038	4.57	2.78	0.61	2117
22	20	5.67	2.78	0.49	1999	5.28	2.59	0.49	2097	4.90	2.40	0.49	2215
22	22	6.00	2.22	0.37	2078	5.61	2.08	0.37	2195	5.23	1.93	0.37	2274
23	18	5.39	3.50	0.65	1921	4.95	3.22	0.65	2038	4.57	2.97	0.65	2117
23	20	5.67	3.00	0.53	1999	5.28	2.80	0.53	2097	4.90	2.59	0.53	2215
23	22	6.00	2.46	0.41	2078	5.61	2.30	0.41	2195	5.23	2.14	0.41	2274
24	18	5.39	3.72	0.69	1921	4.95	3.42	0.69	2038	4.57	3.15	0.69	2117
24	20	5.67	3.23	0.57	1999	5.28	3.01	0.57	2097	4.90	2.79	0.57	2215
24	22	6.00	2.70	0.45	2078	5.61	2.52	0.45	2195	5.23	2.35	0.45	2274
24	24	6.33	2.09	0.33	2156	5.94	1.96	0.33	2254	5.61	1.85	0.33	2352
25	20	5.67	3.46	0.61	1999	5.28	3.22	0.61	2097	4.90	2.99	0.61	2215
25	22	6.00	2.94	0.49	2078	5.61	2.75	0.49	2195	5.23	2.56	0.49	2274
25	24	6.33	2.34	0.37	2156	5.94	2.20	0.37	2254	5.61	2.08	0.37	2352
26	18	5.39	4.15	0.77	1921	4.95	3.81	0.77	2038	4.57	3.52	0.77	2117
26	20	5.67	3.68	0.65	1999	5.28	3.43	0.65	2097	4.90	3.18	0.65	2215
26	22	6.00	3.18	0.53	2078	5.61	2.97	0.53	2195	5.23	2.77	0.53	2274
26	24	6.33	2.59	0.41	2156	5.94	2.44	0.41	2254	5.61	2.30	0.41	2352
26	26	6.66	1.93	0.29	2234	6.27	1.82	0.29	2332	5.89	1.71	0.29	2430
27	18	5.39	4.37	0.81	1921	4.95	4.01	0.81	2038	4.57	3.70	0.81	2117
27	20	5.67	3.91	0.69	1999	5.28	3.64	0.69	2097	4.90	3.38	0.69	2215
27	22	6.00	3.42	0.57	2078	5.61	3.20	0.57	2195	5.23	2.98	0.57	2274
27	24	6.33	2.85	0.45	2156	5.94	2.67	0.45	2254	5.61	2.52	0.45	2352
27	26	6.66	2.20	0.33	2234	6.27	2.07	0.33	2332	5.89	1.94	0.33	2430
28	18	5.39	4.58	0.85	1921	4.95	4.21	0.85	2038	4.57	3.88	0.85	2117
28	20	5.67	4.14	0.73	1999	5.28	3.85	0.73	2097	4.90	3.57	0.73	2215
28	22	6.00	3.66	0.61	2078	5.61	3.42	0.61	2195	5.23	3.19	0.61	2274
28	24	6.33	3.10	0.49	2156	5.94	2.91	0.49	2254	5.61	2.75	0.49	2352
28	26	6.66	2.46	0.37	2234	6.27	2.32	0.37	2332	5.89	2.18	0.37	2430
29	18	5.39	4.80	0.89	1921	4.95	4.41	0.89	2038	4.57	4.06	0.89	2117
29	20	5.67	4.36	0.77	1999	5.28	4.07	0.77	2097	4.90	3.77	0.77	2215
29	22	6.00	3.90	0.65	2078	5.61	3.65	0.65	2195	5.23	3.40	0.65	2274
29	24	6.33	3.35	0.53	2156	5.94	3.15	0.53	2254	5.61	2.97	0.53	2352
29	26	6.66	2.73	0.41	2234	6.27	2.57	0.41	2332	5.89	2.41	0.41	2430
30	18	5.39	5.01	0.93	1921	4.95	4.60	0.93	2038	4.57	4.25	0.93	2117
30	20	5.67	4.59	0.81	1999	5.28	4.28	0.81	2097	4.90	3.96	0.81	2215
30	22	6.00	4.14	0.69	2078	5.61	3.87	0.69	2195	5.23	3.61	0.69	2274
30	24	6.33	3.61	0.57	2156	5.94	3.39	0.57	2254	5.61	3.20	0.57	2352
30	26	6.66	2.99	0.45	2234	6.27	2.82	0.45	2332	5.89	2.65	0.45	2430
31	18	5.39	5.23	0.97	1921	4.95	4.80	0.97	2038	4.57	4.43	0.97	2117
31	20	5.67	4.82	0.85	1999	5.28	4.49	0.85	2097	4.90	4.16	0.85	2215
31	22	6.00	4.38	0.73	2078	5.61	4.10	0.73	2195	5.23	3.81	0.73	2274
31	24	6.33	3.86	0.61	2156	5.94	3.62	0.61	2254	5.61	3.42	0.61	2352
31	26	6.66	3.26	0.49	2234	6.27	3.07	0.49	2332	5.89	2.88	0.49	2430
32	18	5.39	5.39	1.00	1921	4.95	4.95	1.00	2038	4.57	4.57	1.00	2117
32	20	5.67	5.04	0.89	1999	5.28	4.70	0.89	2097	4.90	4.36	0.89	2215
32	22	6.00	4.62	0.77	2078	5.61	4.32	0.77	2195	5.23	4.02	0.77	2274
32	24	6.33	4.11	0.65	2156	5.94	3.86	0.65	2254	5.61	3.65	0.65	2352
32	26	6.66	3.53	0.53	2234	6.27	3.32	0.53	2332	5.89	3.12	0.53	2430

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SEZ-KA71VA/SUZ-KA71VA
CAPACITY : 7.1(kW) INPUT : 2460(W) SHF : 0.74

		OUTDOOR D.B.(℃)															
INDOOR	INDOOR	21				25				27				30			
D.B.(℃)	W.B.(℃)	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	8.34	4.67	0.56	1968	7.99	4.47	0.56	2066	7.67	4.29	0.56	2165	7.38	4.14	0.56	2263
21	20	8.70	3.83	0.44	2066	8.34	3.67	0.44	2189	8.09	3.56	0.44	2239	7.81	3.44	0.44	2337
22	18	8.34	5.01	0.60	1968	7.99	4.79	0.60	2066	7.67	4.60	0.60	2165	7.38	4.43	0.60	2263
22	20	8.70	4.17	0.48	2066	8.34	4.00	0.48	2189	8.09	3.89	0.48	2239	7.81	3.75	0.48	2337
22	22	9.05	3.26	0.36	2140	8.73	3.14	0.36	2276	8.52	3.07	0.36	2337	8.17	2.94	0.36	2435
23	18	8.34	5.34	0.64	1968	7.99	5.11	0.64	2066	7.67	4.91	0.64	2165	7.38	4.73	0.64	2263
23	20	8.70	4.52	0.52	2066	8.34	4.34	0.52	2189	8.09	4.21	0.52	2239	7.81	4.06	0.52	2337
23	22	9.05	3.62	0.40	2140	8.73	3.49	0.40	2276	8.52	3.41	0.40	2337	8.17	3.27	0.40	2435
24	18	8.34	5.67	0.68	1968	7.99	5.43	0.68	2066	7.67	5.21	0.68	2165	7.38	5.02	0.68	2263
24	20	8.70	4.87	0.56	2066	8.34	4.67	0.56	2189	8.09	4.53	0.56	2239	7.81	4.37	0.56	2337
24	22	9.05	3.98	0.44	2140	8.73	3.84	0.44	2276	8.52	3.75	0.44	2337	8.17	3.59	0.44	2435
24	24	9.51	3.04	0.32	2239	9.16	2.93	0.32	2362	8.95	2.86	0.32	2435	8.66	2.77	0.32	2558
25	20	8.70	5.22	0.60	2066	8.34	5.01	0.60	2189	8.09	4.86	0.60	2239	7.81	4.69	0.60	2337
25	22	9.05	4.35	0.48	2140	8.73	4.19	0.48	2276	8.52	4.09	0.48	2337	8.17	3.92	0.48	2435
25	24	9.51	3.43	0.36	2239	9.16	3.30	0.36	2362	8.95	3.22	0.36	2435	8.66	3.12	0.36	2558
26	18	8.34	6.34	0.76	1968	7.99	6.07	0.76	2066	7.67	5.83	0.76	2165	7.38	5.61	0.76	2263
26	20	8.70	5.57	0.64	2066	8.34	5.34	0.64	2189	8.09	5.18	0.64	2239	7.81	5.00	0.64	2337
26	22	9.05	4.71	0.52	2140	8.73	4.54	0.52	2276	8.52	4.43	0.52	2337	8.17	4.25	0.52	2435
26	24	9.51	3.81	0.40	2239	9.16	3.66	0.40	2362	8.95	3.58	0.40	2435	8.66	3.46	0.40	2558
26	26	9.80	2.74	0.28	2362	9.51	2.66	0.28	2485	9.37	2.62	0.28	2558	9.09	2.54	0.28	2632
27	18	8.34	6.67	0.80	1968	7.99	6.39	0.80	2066	7.67	6.13	0.80	2165	7.38	5.91	0.80	2263
27	20	8.70	5.91	0.68	2066	8.34	5.67	0.68	2189	8.09	5.50	0.68	2239	7.81	5.31	0.68	2337
27	22	9.05	5.07	0.56	2140	8.73	4.89	0.56	2276	8.52	4.77	0.56	2337	8.17	4.57	0.56	2435
27	24	9.51	4.19	0.44	2239	9.16	4.03	0.44	2362	8.95	3.94	0.44	2435	8.66	3.81	0.44	2558
27	26	9.80	3.14	0.32	2362	9.51	3.04	0.32	2485	9.37	3.00	0.32	2558	9.09	2.91	0.32	2632
28	18	8.34	7.01	0.84	1968	7.99	6.71	0.84	2066	7.67	6.44	0.84	2165	7.38	6.20	0.84	2263
28	20	8.70	6.26	0.72	2066	8.34	6.01	0.72	2189	8.09	5.83	0.72	2239	7.81	5.62	0.72	2337
28	22	9.05	5.43	0.60	2140	8.73	5.24	0.60	2276	8.52	5.11	0.60	2337	8.17	4.90	0.60	2435
28	24	9.51	4.57	0.48	2239	9.16	4.40	0.48	2362	8.95	4.29	0.48	2435	8.66	4.16	0.48	2558
28	26	9.80	3.53	0.36	2362	9.51	3.43	0.36	2485	9.37	3.37	0.36	2558	9.09	3.27	0.36	2632
29	18	8.34	7.34	0.88	1968	7.99	7.03	0.88	2066	7.67	6.75	0.88	2165	7.38	6.50	0.88	2263
29	20	8.70	6.61	0.76	2066	8.34	6.34	0.76	2189	8.09	6.15	0.76	2239	7.81	5.94	0.76	2337
29	22	9.05	5.79	0.64	2140	8.73	5.59	0.64	2276	8.52	5.45	0.64	2337	8.17	5.23	0.64	2435
29	24	9.51	4.95	0.52	2239	9.16	4.76	0.52	2362	8.95	4.65	0.52	2435	8.66	4.50	0.52	2558
29	26	9.80	3.92	0.40	2362	9.51	3.81	0.40	2485	9.37	3.75	0.40	2558	9.09	3.64	0.40	2632
30	18	8.34	7.68	0.92	1968	7.99	7.35	0.92	2066	7.67	7.05	0.92	2165	7.38	6.79	0.92	2263
30	20	8.70	6.96	0.80	2066	8.34	6.67	0.80	2189	8.09	6.48	0.80	2239	7.81	6.25	0.80	2337
30	22	9.05	6.16	0.68	2140	8.73	5.94	0.68	2276	8.52	5.79	0.68	2337	8.17	5.55	0.68	2435
30	24	9.51	5.33	0.56	2239	9.16	5.13	0.56	2362	8.95	5.01	0.56	2435	8.66	4.85	0.56	2558
30	26	9.80	4.31	0.44	2362	9.51	4.19	0.44	2485	9.37	4.12	0.44	2558	9.09	4.00	0.44	2632
31	18	8.34	8.01	0.96	1968	7.99	7.67	0.96	2066	7.67	7.36	0.96	2165	7.38	7.09	0.96	2263
31	20	8.70	7.31	0.84	2066	8.34	7.01	0.84	2189	8.09	6.80	0.84	2239	7.81	6.56	0.84	2337
31	22	9.05	6.52	0.72	2140	8.73	6.29	0.72	2276	8.52	6.13	0.72	2337	8.17	5.88	0.72	2435
31	24	9.51	5.71	0.60	2239	9.16	5.50	0.60	2362	8.95	5.37	0.60	2435	8.66	5.20	0.60	2558
31	26	9.80	4.70	0.48	2362	9.51	4.57	0.48	2485	9.37	4.50	0.48	2558	9.09	4.36	0.48	2632
32	18	8.34	8.34	1.00	1968	7.99	7.99	1.00	2066	7.67	7.67	1.00	2165	7.38	7.38	1.00	2263
32	20	8.70	7.65	0.88	2066	8.34	7.34	0.88	2189	8.09	7.12	0.88	2239	7.81	6.87	0.88	2337
32	22	9.05	6.88	0.76	2140	8.73	6.64	0.76	2276	8.52	6.48	0.76	2337	8.17	6.21	0.76	2435
32	24	9.51	6.09	0.64	2239	9.16	5.86	0.64	2362	8.95	5.73	0.64	2435	8.66	5.54	0.64	2558
32	26	9.80	5.09	0.52	2362	9.51	4.95	0.52	2485	9.37	4.87	0.52	2558	9.09	4.73	0.52	2632

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
COOLING operation at Rated frequency
SEZ-KA71VA/SUZ-KA71VA
CAPACITY : 7.1(kW) INPUT : 2460(W) SHF : 0.74

		OUTDOOR D.B.(℃)											
INDOOR D.B.(℃)	INDOOR W.B.(℃)	35				40				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	6.96	3.90	0.56	2411	6.39	3.58	0.56	2558	5.89	3.30	0.56	2657
21	20	7.31	3.22	0.44	2509	6.82	3.00	0.44	2632	6.32	2.78	0.44	2780
22	18	6.96	4.17	0.60	2411	6.39	3.83	0.60	2558	5.89	3.54	0.60	2657
22	20	7.31	3.51	0.48	2509	6.82	3.27	0.48	2632	6.32	3.03	0.48	2780
22	22	7.74	2.79	0.36	2608	7.24	2.61	0.36	2755	6.75	2.43	0.36	2854
23	18	6.96	4.45	0.64	2411	6.39	4.09	0.64	2558	5.89	3.77	0.64	2657
23	20	7.31	3.80	0.52	2509	6.82	3.54	0.52	2632	6.32	3.29	0.52	2780
23	22	7.74	3.10	0.40	2608	7.24	2.90	0.40	2755	6.75	2.70	0.40	2854
24	18	6.96	4.73	0.68	2411	6.39	4.35	0.68	2558	5.89	4.01	0.68	2657
24	20	7.31	4.10	0.56	2509	6.82	3.82	0.56	2632	6.32	3.54	0.56	2780
24	22	7.74	3.41	0.44	2608	7.24	3.19	0.44	2755	6.75	2.97	0.44	2854
24	24	8.17	2.61	0.32	2706	7.67	2.45	0.32	2829	7.24	2.32	0.32	2952
25	20	7.31	4.39	0.60	2509	6.82	4.09	0.60	2632	6.32	3.79	0.60	2780
25	22	7.74	3.71	0.48	2608	7.24	3.48	0.48	2755	6.75	3.24	0.48	2854
25	24	8.17	2.94	0.36	2706	7.67	2.76	0.36	2829	7.24	2.61	0.36	2952
26	18	6.96	5.29	0.76	2411	6.39	4.86	0.76	2558	5.89	4.48	0.76	2657
26	20	7.31	4.68	0.64	2509	6.82	4.36	0.64	2632	6.32	4.04	0.64	2780
26	22	7.74	4.02	0.52	2608	7.24	3.77	0.52	2755	6.75	3.51	0.52	2854
26	24	8.17	3.27	0.40	2706	7.67	3.07	0.40	2829	7.24	2.90	0.40	2952
26	26	8.59	2.41	0.28	2804	8.09	2.27	0.28	2927	7.60	2.13	0.28	3050
27	18	6.96	5.57	0.80	2411	6.39	5.11	0.80	2558	5.89	4.71	0.80	2657
27	20	7.31	4.97	0.68	2509	6.82	4.63	0.68	2632	6.32	4.30	0.68	2780
27	22	7.74	4.33	0.56	2608	7.24	4.06	0.56	2755	6.75	3.78	0.56	2854
27	24	8.17	3.59	0.44	2706	7.67	3.37	0.44	2829	7.24	3.19	0.44	2952
27	26	8.59	2.75	0.32	2804	8.09	2.59	0.32	2927	7.60	2.43	0.32	3050
28	18	6.96	5.84	0.84	2411	6.39	5.37	0.84	2558	5.89	4.95	0.84	2657
28	20	7.31	5.27	0.72	2509	6.82	4.91	0.72	2632	6.32	4.55	0.72	2780
28	22	7.74	4.64	0.60	2608	7.24	4.35	0.60	2755	6.75	4.05	0.60	2854
28	24	8.17	3.92	0.48	2706	7.67	3.68	0.48	2829	7.24	3.48	0.48	2952
28	26	8.59	3.09	0.36	2804	8.09	2.91	0.36	2927	7.60	2.73	0.36	3050
29	18	6.96	6.12	0.88	2411	6.39	5.62	0.88	2558	5.89	5.19	0.88	2657
29	20	7.31	5.56	0.76	2509	6.82	5.18	0.76	2632	6.32	4.80	0.76	2780
29	22	7.74	4.95	0.64	2608	7.24	4.63	0.64	2755	6.75	4.32	0.64	2854
29	24	8.17	4.25	0.52	2706	7.67	3.99	0.52	2829	7.24	3.77	0.52	2952
29	26	8.59	3.44	0.40	2804	8.09	3.24	0.40	2927	7.60	3.04	0.40	3050
30	18	6.96	6.40	0.92	2411	6.39	5.88	0.92	2558	5.89	5.42	0.92	2657
30	20	7.31	5.85	0.80	2509	6.82	5.45	0.80	2632	6.32	5.06	0.80	2780
30	22	7.74	5.26	0.68	2608	7.24	4.92	0.68	2755	6.75	4.59	0.68	2854
30	24	8.17	4.57	0.56	2706	7.67	4.29	0.56	2829	7.24	4.06	0.56	2952
30	26	8.59	3.78	0.44	2804	8.09	3.56	0.44	2927	7.60	3.34	0.44	3050
31	18	6.96	6.68	0.96	2411	6.39	6.13	0.96	2558	5.89	5.66	0.96	2657
31	20	7.31	6.14	0.84	2509	6.82	5.73	0.84	2632	6.32	5.31	0.84	2780
31	22	7.74	5.57	0.72	2608	7.24	5.21	0.72	2755	6.75	4.86	0.72	2854
31	24	8.17	4.90	0.60	2706	7.67	4.60	0.60	2829	7.24	4.35	0.60	2952
31	26	8.59	4.12	0.48	2804	8.09	3.89	0.48	2927	7.60	3.65	0.48	3050
32	18	6.96	6.96	1.00	2411	6.39	6.39	1.00	2558	5.89	5.89	1.00	2657
32	20	7.31	6.44	0.88	2509	6.82	6.00	0.88	2632	6.32	5.56	0.88	2780
32	22	7.74	5.88	0.76	2608	7.24	5.50	0.76	2755	6.75	5.13	0.76	2854
32	24	8.17	5.23	0.64	2706	7.67	4.91	0.64	2829	7.24	4.63	0.64	2952
32	26	8.59	4.47	0.52	2804	8.09	4.21	0.52	2927	7.60	3.95	0.52	3050

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA
HEATING operation
SLZ-KA25VA(L)/SUZ-KA25VA(H) at Rated frequency
CAPACITY : 3.0(kW) INPUT : 830(W)

	OUTDOOR W.B.(℃)															
INDOOR	-15		-10		-5		0		5		10		15		20	
D.B.(℃)	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	1.50	432	1.89	540	2.28	647	2.67	730	3.06	789	3.45	838	3.81	863	4.20	880
21	1.41	460	1.80	581	2.16	689	2.55	764	2.91	822	3.30	863	3.66	888	4.04	921
26	1.23	498	1.62	623	2.01	730	2.37	805	2.76	863	3.15	905	3.51	930	3.90	955

SLZ-KA35VA(L)/SUZ-KA35VA(H) at Rated frequency
CAPACITY : 4.0(kW) INPUT : 1100(W)

	OUTDOOR W.B.(℃)															
INDOOR	-15		-10		-5		0		5		10		15		20	
D.B.(℃)	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	2.00	572	2.52	715	3.04	858	3.56	968	4.08	1045	4.60	1111	5.08	1144	5.60	1166
21	1.88	609	2.40	770	2.88	913	3.40	1012	3.88	1089	4.40	1144	4.88	1177	5.38	1221
26	1.64	660	2.16	825	2.68	968	3.16	1067	3.68	1144	4.20	1199	4.68	1232	5.20	1265

SLZ-KA50VA(L)/SUZ-KA50VA at Rated frequency
CAPACITY : 5.0(kW) INPUT : 1550(W)

	OUTDOOR W.B.(℃)													
INDOOR	-10		-5		0		5		10		15		20	
D.B.(℃)	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	3.15	1008	3.80	1209	4.45	1364	5.10	1473	5.75	1566	6.35	1612	7.00	1643
21	3.00	1085	3.60	1287	4.25	1426	4.85	1535	5.50	1612	6.10	1659	6.73	1721
26	2.70	1163	3.35	1364	3.95	1504	4.60	1612	5.25	1690	5.85	1739	6.50	1783

SEZ-KC25VA/SUZ-KA25VA(H) at Rated frequency

CAPACITY : 3.0(kW) INPUT : 830(W)

	OUTDOOR W.B.(℃)															
INDOOR	-15		-10		-5		0		5		10		15		20	
D.B.(℃)	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	1.50	432	1.89	540	2.28	647	2.67	730	3.06	789	3.45	838	3.81	863	4.20	880
21	1.41	460	1.80	581	2.16	689	2.55	764	2.91	822	3.30	863	3.66	888	4.04	921
26	1.23	498	1.62	623	2.01	730	2.37	805	2.76	863	3.15	905	3.51	930	3.90	955

SEZ-KA35VA/SUZ-KA35VA(H) at Rated frequency

CAPACITY : 4.0(kW) INPUT : 1100(W)

	OUTDOOR W.B.(℃)															
INDOOR	-15		-10		-5		0		5		10		15		20	
D.B.(℃)	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	2.00	572	2.52	715	3.04	858	3.56	968	4.08	1045	4.60	1111	5.08	1144	5.60	1166
21	1.88	609	2.40	770	2.88	913	3.40	1012	3.88	1089	4.40	1144	4.88	1177	5.38	1221
26	1.64	660	2.16	825	2.68	968	3.16	1067	3.68	1144	4.20	1199	4.68	1232	5.20	1265

SEZ-KA50VA/SUZ-KA50VA at Rated frequency

CAPACITY : 5.9(kW) INPUT : 1840(W)

	OUTDOOR W.B.(℃)													
INDOOR	-10		-5		0		5		10		15		20	
D.B.(℃)	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	3.72	1196	4.48	1435	5.25	1619	6.02	1748	6.79	1858	7.49	1914	8.26	1950
21	3.54	1288	4.25	1527	5.02	1693	5.72	1822	6.49	1914	7.20	1969	7.94	2042
26	3.19	1380	3.95	1619	4.66	1785	5.43	1914	6.20	2006	6.90	2061	7.67	2116

SEZ-KA60VA/SUZ-KA60VA at Rated frequency

CAPACITY : 6.9(kW) INPUT : 2450(W)

	OUTDOOR W.B.(℃)													
INDOOR	-10		-5		0		5		10		15		20	
D.B.(℃)	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	4.35	1593	5.24	1911	6.14	2156	7.04	2328	7.94	2475	8.76	2548	9.66	2597
21	4.14	1715	4.97	2034	5.87	2254	6.69	2426	7.59	2548	8.42	2622	9.28	2720
26	3.73	1838	4.62	2156	5.45	2377	6.35	2548	7.25	2671	8.07	2744	8.97	2818

SEZ-KA71VA/SUZ-KA71VA at Rated frequency

CAPACITY : 8.1(kW) INPUT : 2360(W)

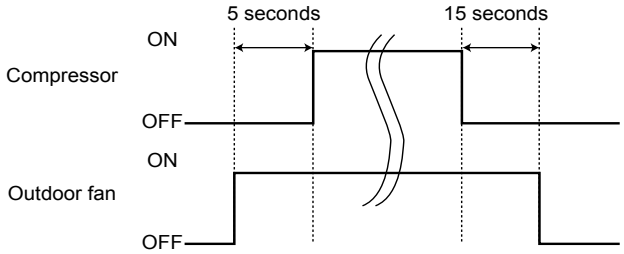
	OUTDOOR W.B.(℃)													
INDOOR	-10		-5		0		5		10		15		20	
D.B.(℃)	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	5.10	1534	6.16	1841	7.21	2077	8.26	2242	9.32	2384	10.29	2454	11.34	2502
21	4.86	1652	5.83	1959	6.89	2171	7.86	2336	8.91	2454	9.88	2525	10.89	2620
26	4.37	1770	5.43	2077	6.40	2289	7.45	2454	8.51	2572	9.48	2643	10.53	2714

10 ACTUATOR CONTROL

SUZ-KA25VA(H) SUZ-KA35VA(H) SUZ-KA50VA SUZ-KA60VA SUZ-KA71VA

10-1. Outdoor fan motor control

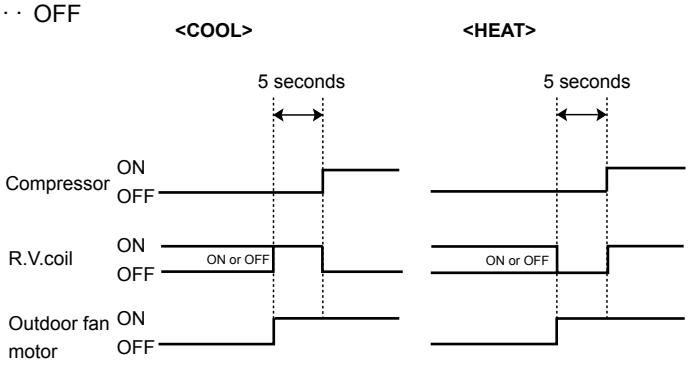
The fan motor turns ON/OFF, interlocking with the compressor.
[ON] The fan motor turns ON 5 seconds before the compressor starts up.
[OFF] The fan motor turns OFF 15 seconds after the compressor has stopped running.



10-2. R.V. coil control

Heating ..... ON
Cooling ..... OFF
Dry ..... OFF

NOTE: The 4-way valve reverses for 5 seconds right before start-up of the compressor.



10-3. Relation between main sensor and actuator

SUZ-KA25VA(H).TH SUZ-KA35VA(H).TH

Sensor	Purpose	Actuator					
		Compressor	LEV	Outdoor fan motor	RV-coil	Indoor fan motor	Defrost heater
Discharge temperature thermistor	Protection	○	○				
Indoor pipe temperature thermistor	Cooling: Coil frost prevention	○					
	Heating: High pressure protection	○	○				
Defrost thermistor	Cooling: High pressure protection	○	○				
	Heating: Defrosting	○	○	○	○	○	
Fin temperature thermistor	Protection	○		○			
Ambient temperature thermistor	Cooling: Low ambient temperature operation	○	○	○			
	Heating: Defrosting (Heater)						○

SUZ-KA25VA(H)R1.TH SUZ-KA35VA(H)R1.TH

Sensor	Purpose	Actuator					
		Compressor	LEV	Outdoor fan motor	R.V.coil	Indoor fan motor	Defrost heater
Discharge temperature thermistor	Protection	○	○				
Indoor coil temperature thermistor	Cooling: Coil frost prevention	○					
	Heating: High pressure protection	○	○				
Defrost thermistor	Heating: Defrosting	○	○	○	○	○	
Fin temperature thermistor	Protection	○		○			
Ambient temperature thermistor	Cooling: Low ambient temperature operation	○	○	○			
	Heating: Defrosting (Heater)						○
Outdoor heat exchanger temperature thermistor	Cooling: Low ambient temperature operation	○	○	○			
	Cooling: High pressure protection	○	○	○			

SUZ-KA50VA/VA1/VAR2.TH SUZ-KA60VA/VA1/VAR2.TH SUZ-KA71VA/VA1.TH

Sensor	Purpose	Actuator			
		Compressor	LEV	Outdoor fan motor	4-way valve
Discharge temperature thermistor	Protection	○	○		
Indoor pipe temperature thermistor	Cooling: Coil frost prevention	○			
	Heating: High pressure protection	○	○		
Defrost thermistor	Heating: Defrosting	○	○	○	○
Fin temperature thermistor	Protection	○		○	
Ambient temperature thermistor	Protection	○	○	○	
Outdoor heat exchanger temperature	Cooling: High pressure protection	○	○	○	

11 SERVICE FUNCTIONS

SUZ-KA25VA(H) SUZ-KA35VA(H)

CHANGE IN DEFROST SETTING

<JS> When the JS wire of the outdoor Inverter P.C. board is cut/ soldered, the defrost finish temperature is changed.
(Refer to 12-6-1 SUZ-KA25/35VA(H).TH)
(Refer to 12-6-3 SUZ-KA25/35VA(H)R1.TH)

Jumper wire		Defrost finish temperature				
		SUZ-KA25VA	SUZ-KA25VAH	SUZ-KA35VA	SUZ-KA35VAH	
JS	Soldered (Initial setting)	5 °C	8 °C	10 °C	13 °C	10 °C
	None (cut)	8 °C	15 °C	13 °C	15 °C	13 °C
Serial No.		—	~9XP00121	—	~67P00330	68P00331~

Jumper wire		Defrost finish temperature				
		SUZ-KA25VA	SUZ-KA25VAH	SUZ-KA35VA	SUZ-KA35VAH	
JS	Soldered		8 °C			
	None (Initial setting)		15 °C			
Serial No.			9YP00122~			

12 TROUBLESHOOTING

SUZ-KA25VA(H) SUZ-KA35VA(H) SUZ-KA50VA SUZ-KA60VA SUZ-KA71VA

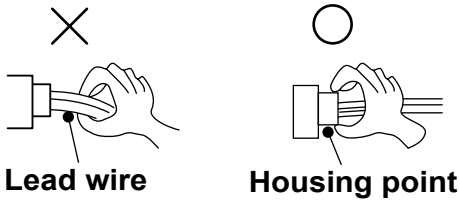
12-1. Cautions on troubleshooting

1. Before troubleshooting, check the following:

1) Check the power supply voltage.
2) Check the indoor/outdoor connecting wire for miswiring.

2. Take care the following during servicing.

1) Before servicing the air conditioner, be sure to turn OFF the main unit first with the remote controller, and turn off the breaker.
2) Be sure to turn OFF the power supply before removing the front panel, the cabinet, the top panel, and the electronic control P.C. board.
3) When removing the electrical parts, be careful of the residual voltage of smoothing capacitor.
4) When removing the electronic control P.C. board, hold the edge of the board with care NOT to apply stress on the components.
5) When connecting or disconnecting the connectors, hold the housing of the connector. DO NOT pull the lead wires.



3. Troubleshooting procedure

1) First, check if the OPERATION INDICATOR lamp is blinking on and off to indicate an abnormality. To make sure, check how many times the abnormality indication is blinking on and off before starting service work.
2) Before servicing check that the connector and terminal are connected properly.
3) If the electronic control P.C. board is supposed to be defective, check the copper foil pattern for disconnection and the components for bursting and discoloration.
4) When troubleshooting, refer to 12-2. and 12-3.

12-2. Failure mode recall function

As this air conditioner has a function to memorize all the failures that had happened, the latest failure detail can be recalled by following the procedures below.
Use this function when the check code is not displayed with wired remote controller or the remote controller at use is wireless type.

12-2-1. Flow chart of the indoor/outdoor unit failure mode recall function

Operational procedure (For wireless remote controller)

① While pressing both OPERATION SELECT button and TOO COOL button on the remote controller at the same time, press RESET button.
② First, release RESET button.
And release the other two buttons since all LCD in operation display section of the remote controller is displayed after 3 seconds.

Setting up the failure mode recall function

Turn ON the power supply.
① While pressing both OPERATION SELECT button and TOO COOL button on the remote controller at the same time, press RESET button.
② First, release RESET button.
And release the other two buttons since all LCD in operation display section of the remote controller is displayed after 3 seconds.

※1
Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed).

※1. Regardless of normal or abnormal, a short beep is emitted once as the signal is received.

Does OPERATION INDICATOR lamp on the indoor unit blink at the interval of 0.5 seconds?
Blinks: Either indoor or outdoor unit is abnormal.
Beep sounds are emitted at the same timing of the blinking of OPERATION INDICATOR lamp. ※2

No (OFF) → Indoor unit is normal.
There is a possibility that the plasma or outdoor unit is abnormal.
Confirm the failure detail on the LED display of the outdoor controller board.(refer to 12-2-4.)

Yes (Blinks)

Judgment of indoor/outdoor abnormality

Before blinking, does POWER lamp stay ON for 3 seconds?
Stays ON for 3 seconds (without beep): The outdoor unit is abnormal.

Yes → The outdoor unit is abnormal.
Check the blinking pattern, and confirm the abnormal point(12-2.3.).
Make sure to check at least two consecutive blinking cycles. ※3

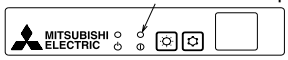
No → The indoor unit is abnormal.
Check the blinking pattern, and confirm the abnormal point.
Make sure to check at least two consecutive blinking cycles. ※2

Releasing the failure mode recall function

Release the failure mode recall function by the following procedures.
①With the remote controller headed towards the indoor unit, press any button that is not used in this failure mode recall function (e.g. TIMER button) .
OR
①Turn OFF the power supply and turn ON it again.
②Press RESET button of the remote controller.

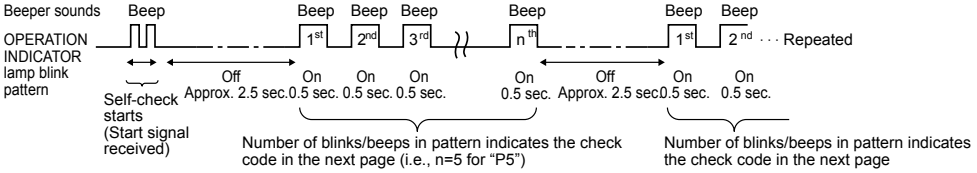
Repair the defective parts.

OPERATION INDICATOR lamp

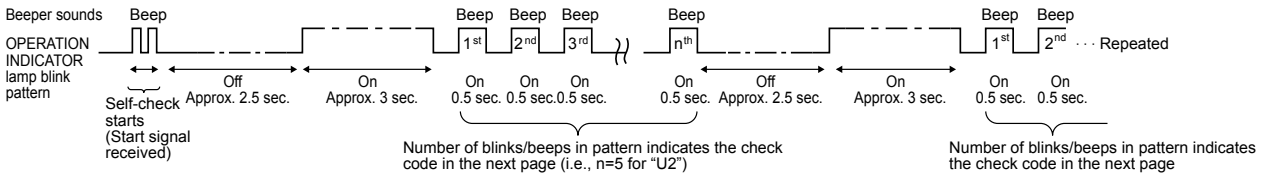


Note1. Make sure to release the failure mode recall function once it is set up, otherwise the unit cannot operate properly.
2. If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.

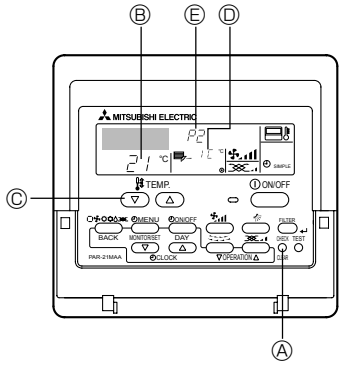
※2. Blinking pattern when the indoor unit is abnormal:[Output pattern A]



※3.Blinking pattern when the outdoor unit is abnormal:[Output pattern B]



12-2-2. Wired remote controller



Ⓐ CHECK button
Ⓑ Refrigerant address
Ⓒ TEMP. button
Ⓓ IC: Indoor unit
OC: Outdoor unit
Ⓔ Check code

① Turn on the power.
② Press the [CHECK] button twice.
③ Set refrigerant address with [TEMP] button if system control is used.
④ Press the [ON/OFF] button to stop the self-check.

12-2-3. Failure mode table (Wireless remote controller/Wired remote controller)

[Output pattern A] Errors detected by indoor unit

Wired remote controller	Wireless remote controller	Symptom	Remark
Check code	Beeper sounds/OPERATION INDICATOR lamp blinks (Number of times)		
P1	1	Intake sensor error	
P2	2	Pipe (TH2) sensor error	
P9		Pipe (TH5) sensor error	
E6,E7	3	Indoor/outdoor unit communication error	
P4	4	Drain sensor error/Float switch connector open	
P5	5	Drain pump error	
P6	6	Freezing/Overheating protection operation	
EE	7	Communication error between indoor and outdoor units	
P8	8	Pipe temperature error	
E4, E5	9	Remote controller signal receiving error	
–	10	–	
–	11	–	
Fb	12	Indoor unit control system error (memory error, etc.)	
E0, E3	–	Remote controller transmission error	
E1, E2	–	Remote controller control board error	

[Output pattern B] Errors detected by unit other than indoor unit (outdoor unit, etc.)

Wired remote controller	Wireless remote controller	Symptom	Remark
Check code	Beeper sounds/OPERATION INDICATOR lamp blinks (Number of times)		
E9	1	Indoor/outdoor unit communication error (Transmitting error) (Outdoor unit)	For details, check the LED display of the outdoor controller board.
UP	2	Compressor overcurrent interruption	
U3,U4	3	Open/short of outdoor unit thermistors	
UF	4	Compressor overcurrent interruption (When compressor locked)	
U2	5	Abnormal high discharging temperature/insufficient refrigerant	
U1,Ud	6	Abnormal high pressure (63H worked)/Overheating protection operation	
U5	7	Abnormal temperature of heat sink	
U8	8	Outdoor unit fan protection stop	
U6	9	Compressor overcurrent interruption/Abnormal of power module	
U7	10	Abnormality of super heat due to low discharge temperature	
U9,UH	11	Abnormality such as overvoltage or voltage shortage and abnormal synchronous signal to main circuit/Current sensor error	
–	12	–	
–	13	–	
Others	14	Other errors	

- If the beeper does not sound again after the initial two beeps to confirm the self-check start signal was received and the OPERATION INDICATOR lamp does not come on, there are no error records.
- If the beeper sounds three times continuously “beep, beep, beep (0.4 + 0.4 + 0.4 sec.)” after the initial two beeps to confirm the self-check start signal was received, the specified refrigerant address is incorrect.
- On wireless remote controller
  The continuous buzzer sounds from receiving section of indoor unit.
  Blink of operation lamp
- On wired remote controller
  Check code displayed in the LCD.

12-2-4. Outdoor unit failure mode table
SUZ-KA25VA(H) SUZ-KA35VA(H) (Except for SUZ-KA25/35VA(H)R1.TH)

LED indication (Outdoor unit)	Abnormal point (Failure mode)	Details of abnormal	Detection method	Check point
1-time flash every 2.5 seconds	Outdoor thermistors	Discharge temperature	When thermistors short or open during compressor running.	•Check the outdoor thermistors ※Defective outdoor thermistors can be identified by checking the blinking pattern of LED.
		Defrost thermistor		
2-time flash 2.5 seconds OFF		Ambient temperature thermistor		
3-time flash 2.5 seconds OFF		Fin temperature thermistor		
4-time flash 2.5 seconds OFF		P.C. board temperature thermistor		
5-time flash 2.5 seconds OFF	Outdoor control system	Nonvolatile memory data	When nonvolatile memory data cannot be read properly, unit stops.	•Replace the inverter P.C. board.
7-time flash 2.5 seconds OFF	Fin temperature/P.C. board temperature overheat	Fin temperature/P.C. board temperature overheat protection	When fin temperature exceeds 83℃ (SUZ-KA25VA(H))/82℃ (SUZ-KA35VA(H)), or P.C. board temperature exceeds 85℃ (SUZ-KA25VA(H))/81℃ (SUZ-KA35VA(H)).	•Check around outdoor unit. •Check outdoor unit air passage. •Check the outdoor fan motor.
8-time flash 2.5 seconds OFF	Converter control system	DC voltage	When DC voltage of inverter cannot be detected normally.	•Check the inverter/compressor.
9-time flash 2.5 seconds OFF		Compressor each phase current	When compressor each phase current cannot be detected normally.	
10-time flash 2.5 seconds OFF	Overcurrent protection	Compressor open-phase protection	When 14A (SUZ-KA25VA(H))/24A (SUZ-KA35VA(H)) current flow into intelligent power module (IPM). When the open-phase protection of compressor is detected. When the interphase short out occurs in the output of the intelligent power module (IPM). When the compressor winding shorts out.	•Reconnect compressor connector. •Check the inverter/compressor.
11-time flash 2.5 seconds OFF	Overcurrent protection	Overcurrent protection	When 14A (SUZ-KA25VA(H))/24A (SUZ-KA35VA(H)) current flow into intelligent power module (IPM).	•Reconnect compressor connector. •Check the inverter/compressor. •Check the stop valve.
12-time flash 2.5 seconds OFF		Compressor synchronous abnormality (Compressor start-up failure protection)	When waveform of compressor current is distorted.	•Reconnect compressor connector. •Check the inverter/compressor.
Lighting	Refrigerant system	Discharge temperature overheat protection	When discharge temperature exceeds 116℃.	•Check the refrigerant circuit and refrigerant amount. •Check the LEV. •Check the outdoor thermistors.
	High pressure protection	High pressure protection (Overheat protection)	When the indoor coil thermistor (TH5) exceeds 70℃ in HEAT mode. When the defrost thermistor exceeds 70℃ in COOL mode.	•Check refrigerant circuit and refrigerant amount. •Check the stop valve.
	Low discharge temperature	Low discharge temperature protection	When discharge temperature has been 50℃ or less for 20 minutes.	•Check the refrigerant circuit and refrigerant amount. •Check the LEV.
	Outdoor fan	Outdoor fan protection	When outdoor fan has stopped within 30 seconds 3 times in a row after outdoor fan start-up, unit stops.	•Check the outdoor fan motor. •Check the inverter P.C. board.
	Outdoor power system (※)	Outdoor power system	When it consecutively occurs 3 times that the compressor stops for overcurrent protection or start-up failure protection within 1 minute after start-up.	•Reconnect compressor connector. •Check the inverter/compressor. •Check the stop valve.

※ Operation indicator lamp of the indoor unit (only the wireless remote controller use model) blinks twice.
Refer to 12-2-1. ※3 and 12-2-3. [Outdoor pattern B].

SUZ-KA50VA SUZ-KA60VA SUZ-KA71VA (Except for SUZ-KA50VAR2.TH)

Outdoor LED indication		Abnormal point (Failure mode)	Details of abnormal	Detecting method	Check point
LED1	LED2				
Lighting	Once	Outdoor thermistors	Discharge temperature thermistor	When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 10 minutes of compressor start-up.	• Check the outdoor thermistors.
			Defrost thermistor	When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 5 minutes of compressor start-up.	
	Twice		Ambient temperature thermistor	When a short or open circuit is detected in the thermistor during operation.	
	3 times		Fin temperature thermistor		
	4 times		P.C. board temperature thermistor		• Replace the outdoor electronic control P.C. board.
	9 times		Outdoor heat exchanger temperature thermistor	When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 5 minutes (in cooling) and 10 minutes (in heating) of compressor start-up.	• Check the outdoor thermistors.
	5 times	Outdoor control system	EEPROM	When nonvolatile memory data cannot be read properly, unit stops.	• Replace the outdoor electronic control P.C. board.
	6 times	Converter control system	Communication error between P.C. boards	When the communication between boards protection stop is continuously performed twice.	• Check the connecting wire between outdoor electronic control P.C. board and power board.
			Communication between P.C. boards protection	Communication error occurs between the electronic control P.C.board and power board for more than 10 seconds.	
	7 times		Current sensor	Current sensor protection stop is continuously performed twice.	• Replace the power board.
			Current sensor protection	When a short or open circuit is detected in the current sensor during compressor operating.	
5 times	Goes out		Zero cross detecting circuit	The protection stop of the zero cross detecting circuit is continuously performed 10 times.	• Check the connecting wire among electronic control P.C. board, noise filter P.C. board and power board.
			Zero cross detecting circuit protection	When zero cross signal cannot be detected while the compressor is operating.	
			Converter protection	When a failure is detected in the operation of the converter during operation.	• Replace the power board.
			Bus-bar voltage protection (1)	When the bus-bar voltage exceeds 400V or falls to 200V or below during compressor operating.	
6 times	Goes out		Bus-bar voltage protection (2) ※Even if this protection stop is performed continuously 3 times, it does not mean the abnormality in outdoor power system.	When the bus-bar voltage exceeds 400V or falls to 50V or below during compressor operating.	

Outdoor LED indication		Abnormal point (Failure mode)	Details of abnormal	Detecting method	Check point
LED1	LED2				
Once	Goes out	Overcurrent protection	IPM protection	When overcurrent is detected after 30 seconds of compressor start-up.	• Check the connection of the compressor connecting wire. • Check the inverter/ compressor. • Check the stop valve.
			Lock protection	When overcurrent is detected within 30 seconds after the compressor gets started.	
3 times	Goes out	Fin temperature/P.C. board temperature overheat	Fin temperature overheat protection	When the fin temperature exceeds 87℃ during operation.	• Check around outdoor unit. • Check outdoor unit air passage. • Check the outdoor fan motor.
4 times	Goes out		P.C.boad temperature overheat protection	When the P.C. board temperature exceeds 70℃ during operation.	
Lighting	Lighting	Refrigerant system	Discharge temperature overheat protection	When discharge temperature exceeds 116℃.	• Check refrigerant circuit and refrigerant amount. • Check the LEV. • Check the outdoor thermistors.
		High pressure protection	HPS protection	When high-pressure is detected with the high-pressure switch (HPS) during operation.	• Check refrigerant circuit and refrigerant amount. • Check the stop valve.
			High pressure protection (Overheat protection)	When the indoor coil thermistor (TH5) exceeds 70℃ in HEAT mode. When the outdoor heat exchanger thermistor exceeds 70℃ in COOL mode.	
		Low discharge temperature	Low discharge temperature protection	When the frequency of the compressor is kept 80Hz or more and discharge temperature is kept under 39℃ for more than 20 minutes.	• Check refrigerant circuit and refrigerant amount. • Check the LEV.
		Outdoor fan	Outdoor fan protection	When outdoor fan has stopped within 30 seconds 3 times in a row after outdoor fan start -up,unit stops.	• Check the outdoor fan motor.
		Outdoor power system	Outdoor power system	When IPM protection stop or lock protection stop is continuously performed 3 times within 1 minute after the compressor get started, or when converter protection stop or bus-bar voltage protection stop is continuously performed 3 times within 3 minutes after start-up.	• Reconnect compressor connector. • Check the inverter/ compressor. • Check the stop valve. • Check the PAM module.

SUZ-KA25VA(H)R1.TH SUZ-KA35VA(H)R1.TH SUZ-KA50VAR2.TH

Abnormal point (Failure mode/protection)	LED indication (Outdoor P.C. board)	Condition	Correspondence
None (Normal)	—	—	—
Outdoor power system	—	Overcurrent protection stop is continuously performed 3 times within 1 minute after the compressor gets started.	•Reconnect connectors. •Refer to 12-5. ⓐ "How to check inverter/compressor". •Check stop valve.
Discharge temperature thermistor	1-time flash every 2.5 seconds	Thermistor shorts or opens during compressor running.	•Refer to 12-5. ⓔ "Check of outdoor thermistors". Defective outdoor thermistors can be identified by checking the blinking pattern of LED.
Defrost thermistor			
Fin temperature thermistor	3-time flash 2.5 seconds OFF		
P.C. board temperature thermistor	4-time flash 2.5 seconds OFF		
Ambient temperature thermistor	2-time flash 2.5 seconds OFF		
Overcurrent	11-time flash 2.5 seconds OFF	Large current flows into intelligent power module.	•Reconnect compressor connector. •Refer to 12-5. ⓐ "How to check inverter/compressor". •Check stop valve.
Compressor synchronous abnormality (Compressor start-up failure protection)	12-time flash 2.5 seconds OFF	Waveform of compressor current is distorted.	•Reconnect compressor connector. •Refer to 12-5. ⓐ "How to check inverter/compressor".
Discharge temperature	—	Temperature of discharge temperature thermistor exceeds 116°C, compressor stops. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later.	•Check refrigerant circuit and refrigerant amount. •Refer to 12-5. ⓚ "Check of LEV".
High pressure	—	Temperature indoor coil thermistor exceeds 70°C in HEAT mode. Temperature defrost thermistor exceeds 70°C in COOL mode.	•Check refrigerant circuit and refrigerant amount. •Check stop valve.
Fin temperature/P.C. board temperature	7-time flash 2.5 seconds OFF	Temperature of fin temperature thermistor on the inverter P.C. board exceeds 75 ~ 80°C, or temperature of P.C. board temperature thermistor on the inverter P.C. board exceeds 70 ~ 75°C.	•Check around outdoor unit. •Check outdoor unit air passage. •Refer to 12-5. ⓘ "Check of outdoor fan motor".
Outdoor fan motor	—	Outdoor fan has stopped 3 times in a row within 30 seconds after outdoor fan start-up.	•Refer to 12-5. ⓘ "Check of outdoor fan motor". Refer to 11-5. ⓝ "Check of inverter P.C. board".
Nonvolatile memory data	5-time flash 2.5 seconds OFF	Nonvolatile memory data cannot be read properly.	•Replace the inverter P.C. board.
Discharge temperature	—	Temperature of discharge temperature thermistor has been 50°C or less for 20 minutes.	•Refer to 12-5. ⓚ "Check of LEV". •Check refrigerant circuit and refrigerant amount.
DC voltage	8-time flash 2.5 seconds OFF	DC voltage of inverter cannot be detected normally.	•Refer to 12-5. ⓐ "How to check inverter/compressor".
Each phase current of compressor	9-time flash 2.5 seconds OFF	Each phase current of compressor cannot be detected normally.	
Overcurrent Compressor open-phase	10-time flash 2.5 seconds OFF	Large current flows into intelligent power module (IPM). The open-phase operation of compressor is detected. The interphase short out occurs in the output of the intelligent power module (IPM). The compressor winding shorts out.	•Reconnect compressor connector. •Refer to 12-5. ⓐ "How to check inverter/compressor".
Stop valve (Closed valve)	14-time flash 2.5 seconds OFF	Closed valve is detected by compressor current.	•Check stop valve

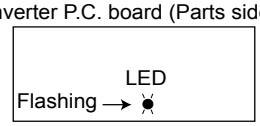
NOTE: Blinking patterns of this mode differ from the ones of Troubleshooting check table (12-3.).

12-3. Troubleshooting check table

SUZ-KA25VA(H)SUZ-KA35VA(H) (Except for SUZ-KA25/35VA(H)R1.TH)

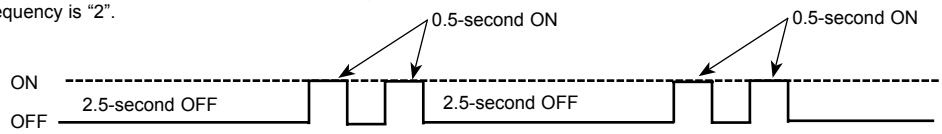
NOTE 1. The location of LED is illustrated at the right figure. Refer to 12-6-1.
2. LED lights up during normal operation.

Inverter P.C. board (Parts side)



No.	Symptom	LED indication	Abnormal point/ Condition	Detection method	Check point
1	Outdoor unit does not operate	1-time flash every 2.5 seconds	Outdoor power system	When it consecutively occurs 3times that the compressor stops for overcurrent protection or start-up failure protection within 1minute start-up.	· Check stop valve. · Reconnect connector of compressor. · Refer to 12-5.Ⓐ "How to check inverter/ compressor".
2			Outdoor thermistors	When discharge temperature thermistor, fin temperature thermistor, defrost thermistor, P.C. board temperature thermistor or ambient temperature thermistor shorts or opens during compressor running.When discharge temperature	· Refer to 12-5.Ⓖ "Check of outdoor thermistors".
3			Outdoor control system	When nonvolatile memory data cannot be read properly, compressor stops.	Replace inverter P.C. board.
4		6-time flash 2.5 seconds OFF	Serial signal	When the communication failure between the indoor and outdoor unit for 3 minutes.	Refer to 12-5.Ⓞ "How to check mis-wiring and serial signal error.
5		14-time flash 2.5 seconds OFF	Outdoor unit (Other abnormality)	When outdoor unit is defective.	Refer to 12-2-3. Check [output pattern B]
6	'Outdoor unit stops and restarts 3 minutes later' is repeated	2-time flash 2.5 seconds OFF	Overcurrent protection	When 14A (SUZ-KA25VA(H))/24A (SUZ-KA35VA(H)) current flows into intelligent power module.	· Check stop valve. · Reconnect connector of compressor. · Refer to 12-5.Ⓐ "How to check inverter/compressor".
7		3-time flash 2.5 seconds OFF	Discharge temperature overheat protection	When discharge temperature thermistor exceeds 116℃, compressor stops. Compressor can restart if discharge temperature thermistor reads 100℃ or less 3 minutes later.	· Check refrigerant circuit and refrigerant amount. · Refer to 12-5.Ⓛ "Check of LEV".
8		4-time flash 2.5 seconds OFF	Fin temperature /P.C. board temperature thermistor overheat protection	When temperature of fin temperature thermistor on the heat sink exceeds 83℃ (SUZ-KA25VA(H))/82℃ (SUZ-KA35VA(H)) or temperature of P.C. board temperature thermistor exceeds 85℃ (SUZ-KA25VA(H))/81℃ (SUZ-KA35VA(H)), compressor stops and restarts 3 minutes later.	· Check around outdoor unit. · Check outdoor unit air passage. · Refer to 12-5.Ⓘ "Check of outdoor fan motor".
9		5-time flash 2.5 seconds OFF	High pressure protection	When indoor coil thermistor exceeds 70℃ in HEAT mode. When the defrost thermistor exceeds 70℃ in COOL mode.	· Check refrigerant circuit and refrigerant amount. · Check stop valve.
10		8-time flash 2.5 seconds OFF	Compressor synchronous abnormality	When the waveform of compressor current is distorted.	· Reconnect connector of compressor. · Refer to 12-5.Ⓐ "How to check inverter/compressor".
11		10-time flash 2.5 seconds OFF	Outdoor fan	When outdoor fan has stopped within 30 seconds 3 times a row after outdoor fan start-up, unit stops.	· Refer to 12-5.Ⓘ "Check of outdoor fan motor. · Refer to 12-5.Ⓝ "Check of inverter P.C. board.
12		12-time flash 2.5 seconds OFF	Each phase current of compressor	When compressor each phase current cannot be detected normally	· Refer to 12-5.Ⓐ "How to check inverter/compressor".
13		13-time flash 2.5 seconds OFF	DC voltage	When DC voltage of inverter cannot be detected normally.	· Refer to 12-5.Ⓐ "How to check inverter/compressor".
14	Outdoor unit operates	1-time flash 2.5 seconds OFF	Frequency drop by current protection	When current from power outlet exceeds 6.1A (SUZ-KA25VA(H))/9.2A (SUZ-KA35VA(H)), compressor frequency lowers.	The unit is normal, but check the following. · Check if indoor filters are clogged. · Check if refrigerant is short. · Check if indoor/outdoor unit air circulation is short cycled.
15		3-time flash 2.5 seconds OFF	Frequency drop by high pressure protection	When indoor coil thermistor exceeds 55℃ in HEAT mode, compressor frequency lowers.	
			Frequency drop by defrosting in COOL mode	When indoor coil thermistor reads 8℃ or less in COOL mode, compressor frequency lowers.	
16		4-time flash 2.5 seconds OFF	Frequency drop by discharge temperature protection	When discharge temperature thermistor exceeds 111℃, compressor frequency lowers.	· Check refrigerant circuit and refrigerant amount. · Refer to 12-5.Ⓛ "Check of LEV". · Refer to 12-5.Ⓖ "Check of outdoor thermistors".
17	Outdoor unit operates	7-time flash 2.5 seconds OFF	Low discharge temperature protection	When discharge temperature has been 50℃ or less for 20 minutes.	· Refer to 12-5.Ⓛ "Check of LEV". · Check refrigerant circuit and refrigerant amount.
18		8-time flash 2.5 seconds OFF	PAM protection PAM: Pulse Amplitude Modulation	When the overcurrent flows into IGBT (Insulated Gate Bipolar transistor : TR821) or when the bus-bar voltage reaches 320V or more, PAM stops and restarts.	This is not malfunction. PAM protection will be activated in the following cases; ① Instantaneous power voltage drop (Short time power failure) ② When the power supply voltage is high.
19		9-time flash 2.5 seconds OFF	Inverter check mode	When the connector of compressor is disconnected, inverter check mode starts.	Check if the connector of the compressor is correctly connected. Refer to 12-5.Ⓐ "How to check inverter/ compressor".

The flashing frequency shows the number of times the LED blinks after every 2.5-second OFF.
(Example) When the flashing frequency is "2".

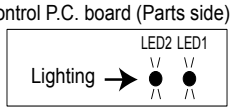


SUZ-KA50VA SUZ-KA60VA SUZ-KA71VA (Except for SUZ-KA50VAR2.TH)

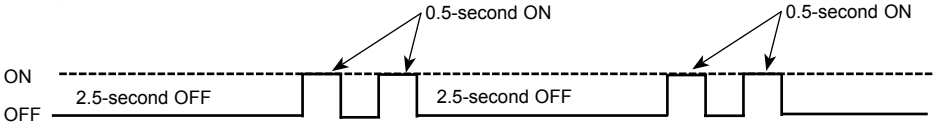
No.	Symptom	Indication		Abnormal point/Condition	Condition	Correspondence
		LED1 (Red)	LED2 (Yellow)			
1	Outdoor unit does not operate.	Lightning	Twice	Outdoor power system	When IPM protection stop or lock protection stop is continuously performed three times within 1 minute after the compressor gets started, or when converter protection stop or bus-bar voltage protection stop is continuously performed three times within 3 minutes after start-up.	• Check the connection of the compressor connecting wire. • Refer to 12-5.Ⓤ "How to check inverter/ compressor". • Check the stop valve.
2		Lightning	3 times	Discharge temperature thermistor	When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 10 minutes of compressor start-up.	• Refer to 12-5.Ⓥ "Check of outdoor thermistor".
3		Lightning	4 times	Fin temperature thermistor	When a short or open circuit is detected in the thermistor during operation.	• Refer to 12-5.Ⓥ "Check of outdoor thermistor".
				P.C board temperature thermistor		• Replace the outdoor electronic control P.C. board.
4		Lightning	5 times	Ambient temperature thermistor	When a short or open circuit is detected in the thermistor during operation.	• Refer to 12-5.Ⓥ "Check of outdoor thermistor".
				Outdoor heat exchanger temperature thermistor	When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 5 minutes (in cooling) and 10 minutes (in heating) of compressor start-up.	
				Defrost thermistor	When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 5 minutes of compressor start-up.	
5		Lightning	6 times	Serial signal	When the communication fails between the indoor and outdoor unit for 3 minutes.	Refer to 12-5.Ⓡ "How to check mis-wiring and serial signal error".
6		Lightning	7 times	Nonvolatile memory data	When the nonvolatile memory data cannot be read properly.	• Replace the outdoor electronic control P.C. board.
7		Lightning	8 times	Current sensor	Current sensor protection stop is continuously performed twice.	• Replace the power board.
8		Lightning	11 times	Communication error between P.C. boards	When the communication protection stop between boards is continuously performed twice.	• Check the connecting wire between outdoor electronic control P.C. board and power board.
9		Lightning	12 times	Zero cross detecting circuit	The protection stop of the zero cross detecting circuit is continuously performed 10 times.	• Check the connecting wire among outdoor electronic control P.C. board, noise filter P.C. board and power board.
10	'Outdoor unit stops and restarts 3 minutes later' is repeated.	Twice	Goes out	IPM protection	When over-current is detected after 30 seconds of compressor start-up.	• Reconnect compressor connector. • Refer to 12-5.Ⓤ "How to check inverter/ compressor". • Check the stop valve. • Check the power module (PAM module).
				Lock protection	When over-current is detected within 30 seconds of compressor start-up.	
11		3 times	Goes out	Discharge temperature protection	When temperature of discharge temperature thermistor exceeds 116:, compressor stops. Compressor can restart if discharge temperature thermistor reads 100℃ or less 3 minutes later.	• Check the amount of gas and refrigerant circuit. • Refer to 12-5.Ⓣ "Check of LEV".
12		4 times	Goes out	Fin temperature protection	When the fin temperature exceeds 87℃ during operation.	• Check refrigerant circuit and refrigerant amount. • Refer to 12-5.Ⓣ "Check of LEV".
				P.C. board temperature protection	When the P.C. board temperature exceeds 70℃ during operation.	
13		5 times	Goes out	High-pressure protection	When high-pressure is detected with the high-pressure switch (HPS) during operation.	• Check around of gas and the refrigerant circuit. • Check of stop valve.
					When the outdoor heat exchanger temperature exceeds 70℃ during cooling or when indoor gas pipe temperature exceeds 70℃ during heating.	
14		8 times	Goes out	Converter protection	When a failure is detected in the operation of the converter during operation.	• Replace the power board.
15		9 times	Goes out	Bus-bar voltage protection (1)	When the bus-bar voltage exceeds 400V or falls to 200V or below during compressor operating.	• Replace the power board.
				Bus-bar voltage protection (2)	When the bus-bar voltage exceeds 400V or falls to 50V or below during compressor operating.	
16		13 times	Goes out	Outdoor fan motor	When failure occurs continuously three times within 30 seconds after the fan gets started.	• Refer to 12-5.Ⓦ "Check of outdoor fan motor".
17		Lighting	8 times	Current sensor protection	When a short or open circuit is detected in the current sensor during compressor operating.	• Replace the power board.
18		Lighting	11 times	Communication between P.C. boards protection	Communication error occurs between the outdoor electronic control P.C. board and power board for more than 10 seconds.	• Check the connecting wire between outdoor electronic control P.C. board and power board.
19		Lighting	12 times	Zero cross detecting circuit protection	When zero cross signal cannot be detected while the compressor is operating.	• Check the connecting wire among outdoor electronic control P.C. board, noise filter P.C. board and power board.

NOTE 1. The location of LED is illustrated at the right figure.
2. LED is lighted during normal operation.

Outdoor electronic control P.C. board (Parts side)



The flashing frequency shows the number of times the LED blinks after every 2.5-second OFF.
(Example) When the flashing frequency is "2".



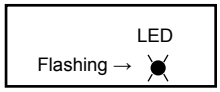
No.	Symptom	Indication		Abnormal point/Condition	Condition	Correspondence
		LED1 (Red)	LED2 (Yellow)			
20	Outdoor unit operates.	Once	Lighting	Primary current protection	When the input current exceeds 15A.	These symptoms do not mean any abnormality of the product, but check the following points. • Check if indoor filters are clogged. • Check if refrigerant is short. • Check if indoor/outdoor unit air circulation is short cycled.
				Secondary current protection	When the current of the compressor exceeds 15A.	
21		Twice	Lighting	High-pressure protection	When the indoor gas pipe temperature exceeds 45℃ during heating.	
				Defrosting in cooling	When the indoor gas pipe temperature falls 3℃ or below during cooling.	
22		3 times	Lighting	Discharge temperature protection	When the discharge temperature exceeds 100℃ during operation.	• Check refrigerant circuit and refrigerant amount. • Refer to 12-5.ⓣ "Check of LEV". • Refer to 12-5.ⓥ "Check of outdoor thermistors".
23		4 times	Lighting	Low discharge temperature protection	When the frequency of the compressor is kept 80Hz or more and the discharge temperature is kept under 39℃ for more than 20 minutes.	• Refer to 12-5.ⓣ "Check of LEV". • Check refrigerant circuit and refrigerant amount.
24		5 times	Lighting	Cooling high-pressure protection	When the outdoor heat exchanger temperature exceeds 58℃ during operation.	This symptom does not mean any abnormality of the product, but check the following points. • Check if indoor filters are clogged. • Check if refrigerant is short. • Check if indoor/outdoor unit air circulation is short cycled.
25	Outdoor unit operates	9 times	Lighting	Inverter check mode	When the unit is operated with emergency operation switch.	—
26		Lighting	Lighting	Normal	—	—

SUZ-KA25VA(H)R1.TH SUZ-KA35VA(H)R1.TH SUZ-KA50VAR2.TH

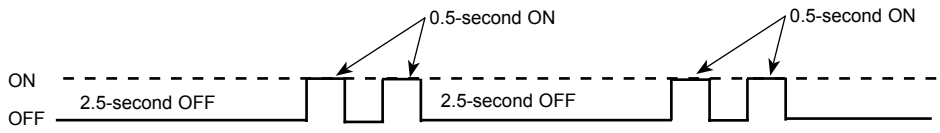
No.	Symptom	LED indication	Abnormal point/ Condition	Condition	Correspondence
1	Outdoor unit does not operate.	1-time flash every 2.5 seconds	Outdoor power system	Overcurrent protection stop is continuously performed 3 times within 1 minute after the compressor gets started, or failure of restart of compressor has repeated 24 times.	•Reconnect connector of compressor. •Refer to 12-5. ⓐ "How to check inverter/compressor". •Check stop valve.
2			Outdoor thermistors	Discharge temperature thermistor, fin temperature thermistor, defrost thermistor, P.C. board temperature thermistor or ambient temperature thermistor shorts or opens during compressor running.	•Refer to 12-5. ⓔ "Check of outdoor thermistors".
3			Outdoor control system	Nonvolatile memory data cannot be read properly. (The left lamp of OPERATION INDICATOR lamp of the indoor unit lights up or flashes 7-time.)	•Replace inverter P.C. board.
4		6-time flash 2.5 seconds OFF	Serial signal	The communication fails between the indoor and outdoor unit for 3 minutes.	•Refer to 11-5. ⓟ "How to check miswiring and serial signal error.
5		11-time flash 2.5 seconds OFF	Stop valve/ Closed valve	Closed valve is detected by compressor current.	•Check stop valve.
6		14-time flash 2.5 seconds OFF	Outdoor unit (Other abnormality)	Outdoor unit is defective.	•Refer to 12-2.1. "Flow chart of the detailed outdoor unit failure mode recall function".
7	'Outdoor unit stops and restarts 3 minutes later' is repeated.	2-time flash 2.5 seconds OFF	Overcurrent protection	Large current flows into intelligent power module, or compressor repeats after 15 seconds when overcurrent protection occurs within 10 seconds after compressor starts. (Repeated 24 times at Maximum)	•Reconnect connector of compressor. •Refer to 12-5. ⓐ "How to check inverter/compressor". •Check stop valve.
8		3-time ?ash 2.5 seconds OFF	Discharge temperature overheat protection	Temperature of discharge temperature thermistor exceeds 116°C, compressor stops. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later.	•Check refrigerant circuit and refrigerant amount. •Refer to 12-5. ⓚ "Check of LEV".
9		4-time flash 2.5 seconds OFF	Fin temperature/P.C. board temperature thermistor overheat protection	Temperature of fin temperature thermistor on the heat sink exceeds 75 ~ 80°C or temperature of P.C. board temperature thermistor on the inverter P.C.board exceeds 70 ~ 75°C.	•Check around outdoor unit. •Check outdoor unit air passage. •Refer to 12-5. ⓘ "Check of outdoor fan motor".
10		5-time flash 2.5 seconds OFF	High pressure protection	Indoor coil thermistor exceeds 70°C in HEAT mode. Defrost thermistor exceeds 70°C in COOL mode.	•Check refrigerant circuit and refrigerant amount. •Check stop valve.
11		8-time flash 2.5 seconds OFF	Compressor synchronous abnormality	The waveform of compressor current is distorted.	•Reconnect connector of compressor. •Refer to 12-5. ⓐ "How to check inverter/compressor".
12		10-time flash 2.5 seconds OFF	Outdoor fan motor	Outdoor fan has stopped 3 times in a row within 30 seconds after outdoor fan start-up.	•Refer to 12-5. ⓘ "Check of outdoor fan motor. •Refer to 12-5. ⓝ "Check of inverter P.C. board.
13		12-time flash 2.5 seconds OFF	Each phase current of compressor	Each phase current of compressor cannot be detected normally	•Refer to 12-5. ⓐ "How to check inverter/compressor".
14		13-time flash 2.5 seconds OFF	DC voltage	DC voltage of inverter cannot be detected normally.	•Refer to 12-5. ⓐ "How to check inverter/compressor".
15	Outdoor unit operates.	1-time flash 2.5 seconds OFF	Frequency drop by current protection	Current from power outlet reaches the protection current, and compressor frequency lowers.	The unit is normal, but check the following. •Check if indoor filters are clogged. •Check if refrigerant is short. •Check if indoor/outdoor unit air circulation is short cycled.
16		3-time flash 2.5 seconds OFF	Frequency drop by high pressure protection	Temperature of indoor coil thermistor exceeds 55°C in HEAT mode, compressor frequency lowers.	
			Frequency drop by defrosting in COOL mode	Indoor coil thermistor reads 8°C or less in COOL mode, compressor frequency lowers.	
17		4-time flash 2.5 seconds OFF	Frequency drop by discharge temperature protection	Temperature of discharge temperature thermistor exceeds 111°C, compressor frequency lowers.	•Check refrigerant circuit and refrigerant amount. •Refer to 12-5. ⓚ "Check of LEV". •Refer to 12-5. ⓔ "Check of outdoor thermistors".
18	Outdoor unit operates.	7-time flash 2.5 seconds OFF	Low discharge temperature protection	Temperature of discharge temperature thermistor has been 50°C or less for 20 minutes.	•Refer to 12-5. ⓚ "Check of LEV". •Check refrigerant circuit and refrigerant amount.
19		8-time flash 2.5 seconds OFF	PAM protection PAM: Pulse Amplitude Modulation	The overcurrent flows into IGBT (Insulated Gate Bipolar transistor : TR821) or when the bus-bar voltage reaches 320 V or more, PAM stops and restarts.	This is not malfunction. PAM protection will be activated in the following cases; 1 Instantaneous power voltage drop (Short time power failure) 2 When the power supply voltage is high.
20		9-time flash 2.5 seconds OFF	Inverter check mode	The connector of compressor is disconnected, inverter check mode starts.	•Check if the connector of the compressor is correctly connected. Refer to 12-5. ⓐ "How to check inverter/ compressor".

NOTE: 1. The location of LED is illustrated at the right figure. Refer to 12-6-3. or 12-6-7.
2. LED is lighted during normal operation.

Inverter P.C. board(Parts side)

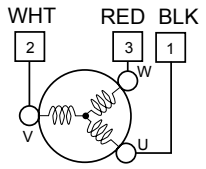
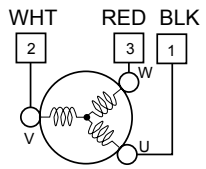
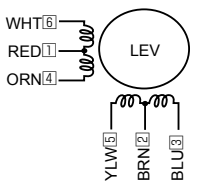


The flashing frequency shows the number of times the LED blinks after every 2.5-second OFF.
(Example) When the flashing frequency is "2".



12-4. Trouble criterion of main parts (1)

SUZ-KA25VA.TH SUZ-KA35VA.TH SUZ-KA25VAR1.TH SUZ-KA35VAR1.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH SUZ-KA25VAHR1.TH SUZ-KA35VAHR1.TH

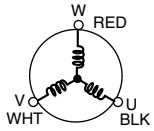
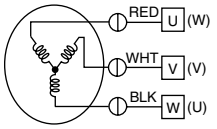
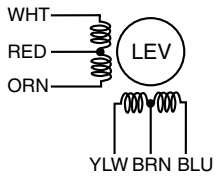
<table>
<tr><th>Part name</th><th>Check method and criterion</th><th>Figure</th></tr>
<tr><td>Defrost thermistor (RT61)
Fin temperature thermistor (RT64)
Ambient temperature thermistor (RT65)
Outdoor heat exchanger temperature thermistor(RT68) (SUZ-KA25/35VA(H)R1.TH)</td><td>Measure the resistance with a tester.
Refer to 12-6. “Test point diagram and voltage”, 12-6-1. or 12-6-3. “Inverter P.C. board”, for the chart of thermistor.</td><td></td></tr>
<tr><td>Discharge temperature thermistor (RT62)</td><td>Measure the resistance with a tester.
Before measurement, hold the thermistor with your hands to warm it up.
Refer to 12-6. “Test point diagram and voltage”, 12-6-1. or 12-6-3. “Inverter P.C. board”, for the chart of thermistor.</td><td></td></tr>
<tr><td>Compressor</td><td>Measure the resistance between the terminals with a tester.
(Part temperature -20°C ~ 40°C)
<table>
<tr><th></th><th colspan="4">Normal</th></tr>
<tr><th></th><th>SUZ-KA25VA(H).TH</th><th>SUZ-KA35VA(H).TH</th><th>SUZ-KA25VA(H)R1.TH</th><th>SUZ-KA35VA(H)R1.TH</th></tr>
<tr><td>U-V
U-W
V-W</td><td>1.28 Ω ~ 1.66 Ω</td><td>0.41 Ω ~ 0.53 Ω</td><td>1.36 Ω ~ 1.93 Ω</td><td>1.52 Ω ~ 2.17 Ω</td></tr>
</table></td><td> 
</td></tr>
<tr><td>Outdoor fan motor</td><td>Measure the resistance between the terminals with a tester.
(Part temperature -20°C ~ 40°C)
<table>
<tr><th rowspan="2">Color of the lead wire</th><th colspan="2">Normal</th></tr>
<tr><th>SUZ-KA25/35VA(H).TH</th><th>SUZ-KA25/35VA(H)R1.TH</th></tr>
<tr><td>WHT - BLK
BLK - RED
RED - WHT</td><td>31 Ω ~ 41 Ω</td><td>29 Ω ~ 42 Ω</td></tr>
</table></td><td> 
</td></tr>
<tr><td>R.V. coil</td><td>Measure the resistance between the terminals with a tester.
(Part temperature -20°C ~ 40°C)
<table>
<tr><th colspan="2">Normal</th></tr>
<tr><th>SUZ-KA25/35VA(H).TH</th><th>SUZ-KA25/35VA(H)R1.TH</th></tr>
<tr><td>1.20 kΩ ~ 1.55 kΩ</td><td>1.19 kΩ ~ 1.78 kΩ</td></tr>
</table></td><td></td></tr>
<tr><td>Expansion valve coil (LEV)</td><td>Measure the resistance with a tester.
(Part temperature : -20°C ~ 40°C)
<table>
<tr><th>Color of the lead wire</th><th>Normal</th></tr>
<tr><td>WHT - RED</td><td rowspan="4">37 Ω ~ 54 Ω</td></tr>
<tr><td>RED - ORN</td></tr>
<tr><td>YLW - BRN</td></tr>
<tr><td>BRN - BLU</td></tr>
</table></td><td> 
</td></tr>
<tr><td>Defrost heater SUZ-KA·VAH</td><td>Measure the resistance with a tester.
(Part temperature -20°C ~ 40°C)
<table>
<tr><th>Normal</th></tr>
<tr><td>333 Ω ~ 428 Ω</td></tr>
</table></td><td></td></tr>
</table>

12-4. Trouble criterion of main parts (2)

SUZ-KA50VA.TH SUZ-KA50VA1.TH SUZ-KA50VAR2.TH
SUZ-KA60VA.TH SUZ-KA60VA1.TH SUZ-KA60VAR2.TH
SUZ-KA71VA.TH SUZ-KA71VA1.TH

<table>
<tr><th>Part name</th><th>Check method and criterion</th><th>Figure</th></tr>
<tr><td>Defrost thermistor (RT61)
Fin temperature thermistor (RT64)
Ambient temperature thermistor (RT65)
Outdoor heat exchanger temperature thermistor (RT68)</td><td>Measure the resistance with a tester.

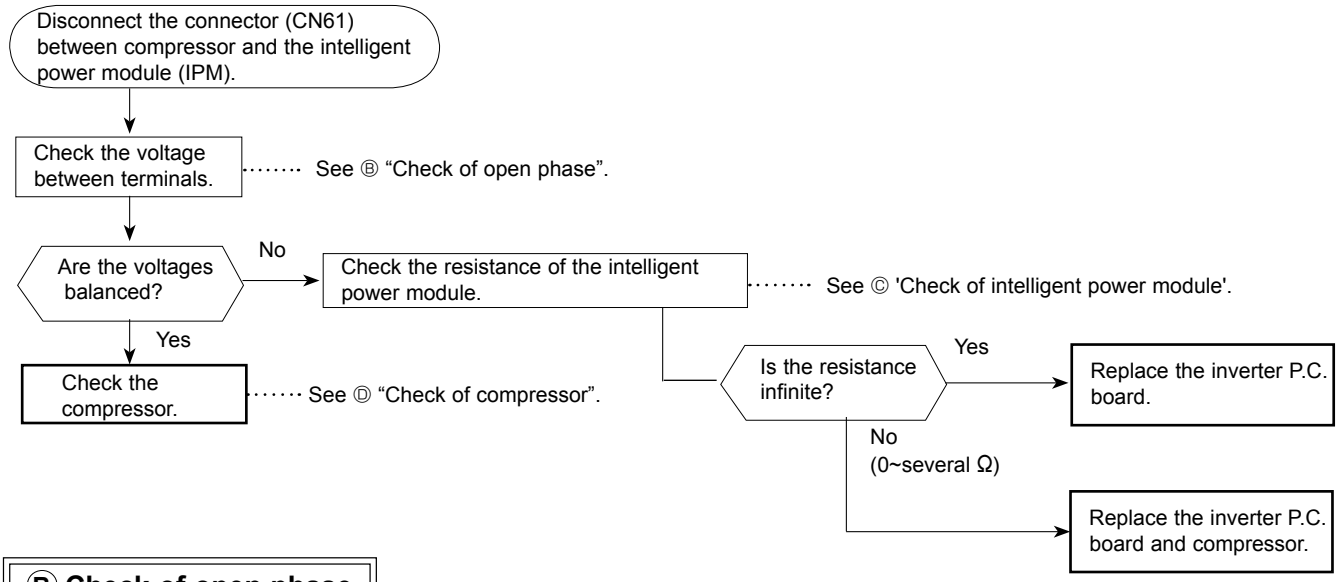
Refer to 12-6. “Test point diagram and voltage”, 12-6-4. “Outdoor electronic control P.C. board” or 12-6-7. “Inverter P.C. board”, for the chart of thermistor.</td><td></td></tr>
<tr><td>Discharge temperature thermistor (RT62)</td><td>Measure the resistance with a tester.
Before measurement, hold the thermistor with your hands to warm it up.

Refer to 12-6. “Test point diagram and voltage”, 12-6-4. “Outdoor electronic control P.C. board” or 12-6-7. “Inverter P.C. board”, for the chart of thermistor.</td><td></td></tr>
<tr><td>Compressor</td><td>Measure the resistance between the terminals with a tester.
(Part temperature -10°C ~ 40°C)
<table><tr><th colspan="3">Normal</th></tr><tr><th>SUZ-KA50/60VA(1).TH</th><th>SUZ-KA50/60VAR2.TH</th><th>SUZ-KA71VA(1).TH</th></tr><tr><td>0.40 Ω ~ 0.49 Ω</td><td>0.86 Ω ~ 1.06 Ω</td><td>1.29 Ω ~ 1.49 Ω</td></tr></table></td><td> 
</td></tr>
<tr><td>Outdoor fan motor</td><td>Measure the resistance between lead wires with a tester.
(Part temperature -10°C ~ 40°C)
<table><tr><th>Color of the lead wire</th><th>Normal</th></tr><tr><td>RED - BLK</td><td rowspan="3">13.4 Ω ~ 16.4 Ω</td></tr><tr><td>BLK - WHT</td></tr><tr><td>WHT - RED</td></tr></table></td><td> 
</td></tr>
<tr><td>R.V. coil</td><td>Measure the resistance with a tester.
(Part temperature -10°C ~ 40°C)
<table><tr><th colspan="2">Normal</th></tr><tr><th>SUZ-KA50/60VAR2.TH</th><th>Other models</th></tr><tr><td>1.32 kΩ ~ 1.62 kΩ</td><td>2.6 kΩ ~ 3.3 kΩ</td></tr></table></td><td></td></tr>
<tr><td>Expansion valve coil (LEV)</td><td>Measure the resistance with a tester.
(Part temperature : -10°C ~ 40°C)
<table><tr><th>Color of the lead wire</th><th>Normal</th></tr><tr><td>WHT - RED</td><td rowspan="4">37.4 Ω ~ 53.9 Ω</td></tr><tr><td>RED - ORN</td></tr><tr><td>YLW - BRN</td></tr><tr><td>BRN - BLU</td></tr></table></td><td> 
</td></tr>
<tr><td>High pressure switch (HPS)
SUZ-KA60VAR2.TH
SUZ-KA71VA(1).TH</td><td><table><tr><th colspan="2">Pressure</th></tr><tr><td>3.7 ± 0.15 MPa</td><td>Close</td></tr><tr><td>4.8 $^{+0.05}_{-0.1}$ MPa</td><td>Open</td></tr></table></td><td></td></tr>
</table>

12-5. Troubleshooting flow

Outdoor unit does not operate.

Ⓐ How to check inverter/compressor


Disconnect the connector (CN61) between compressor and the intelligent power module (IPM).
Check the voltage between terminals.
See Ⓑ "Check of open phase".
Are the voltages balanced?
No
Check the resistance of the intelligent power module.
See Ⓒ 'Check of intelligent power module'.
Yes
Check the compressor.
See Ⓓ "Check of compressor".
Is the resistance infinite?
Yes
Replace the inverter P.C. board.
No
(0~several Ω)
Replace the inverter P.C. board and compressor.

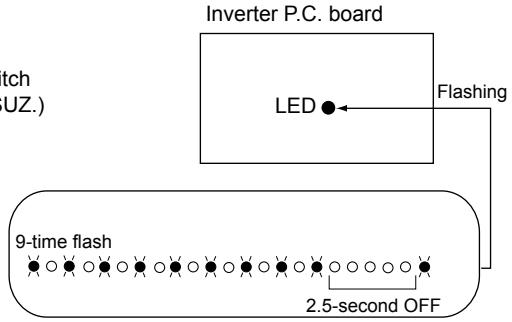
Ⓑ Check of open phase

- With the connector between compressor and the intelligent power module disconnected, activate the inverter and check if the inverter is normal by measuring the balance of voltage between terminals.

Output voltage [V]
115V

<< Operation method>>
Start cooling or heating operation by pressing the EMERGENCY OPERATION switch on the indoor unit. (test-run mode : refer to page 31 for SLZ/SUZ and 37 for SEZ/SUZ.)
<<Measurement point>> ※ Measure AC voltage between the lead wires at 3 points.
BLK (U)-WHT (V)
BLK (U)-RED (W)
WHT(V)-RED (W)

NOTE 1. Output voltage varies according to power supply voltage.
2. Measure the voltage by analog type tester.
3. During this check, LED of inverter P.C. board flashes 9 times.



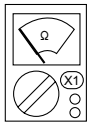
Ⓒ Check of intelligent power module

- Measure the resistance between terminals on the intelligent power module.

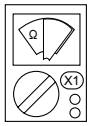
<<Measurement point>>
at 6 points
BLK-WHT, WHT-BLK
BLK-RED, RED-BLK
WHT-RED, RED-WHT

<<Judgement>>
Infinite [Ω]·····Normal
0~dozens of ·····Abnormal (short)

ohmmeter indication

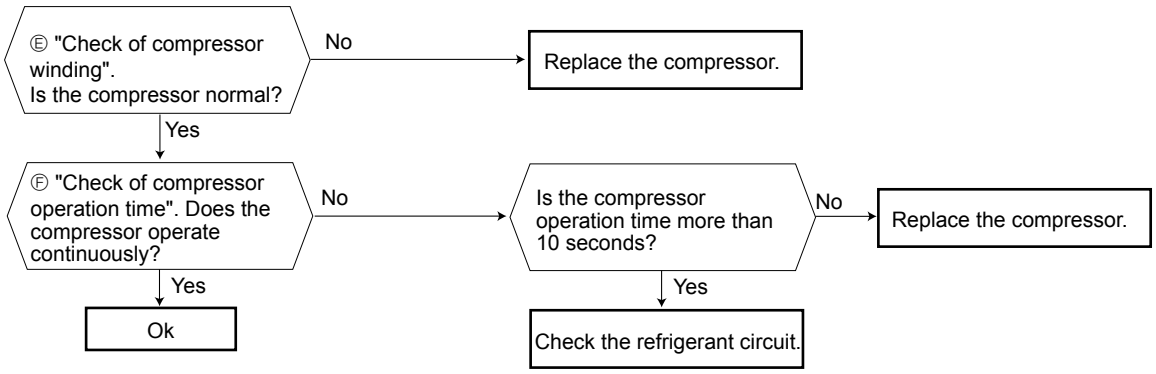


····· Normal (infinite)



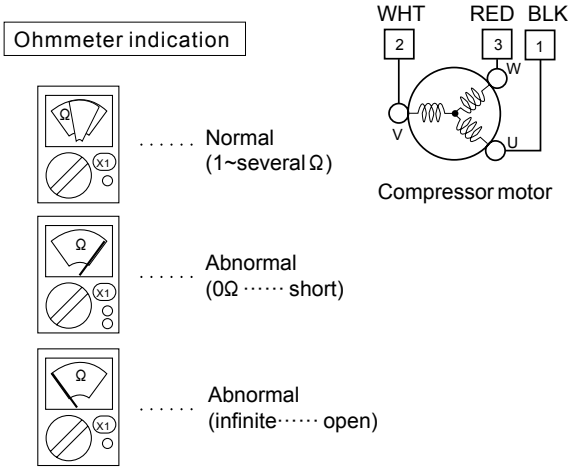
····· Abnormal (0~dozens of Ω)

Ⓓ Check of compressor



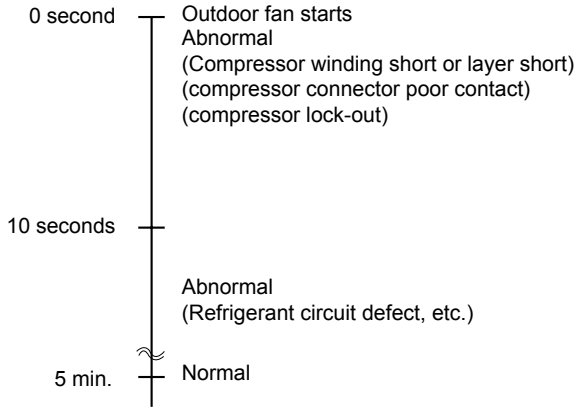
Ⓔ Check of compressor winding

● Disconnect the connector (CN61) between compressor and intelligent power module, and measure the resistance between the compressor terminals.
Measurement point at 3 points of lead wire.
BLK-WHT
BLK-RED
WHT-RED
<<Judgment>>
Refer to 12-4..
0[Ω] ·····Abnormal [short]
Infinite[Ω] ·····Abnormal [open]
NOTE 1. Be sure to zero the ohmmeter before measurement.
2. Winding resistance for each phase at 20℃.
Refer to 4. SPECIFICATION.



Ⓕ Check of compressor operation time

●Connect the compressor and activate the inverter. Then measure the time until the inverter stops due to over current.
<<Operation method>>
[For wireless remote controller use model]
Start heating or cooling operation by pressing the EMERGENCY OPERATION switch on the indoor unit. (Test-run mode)
[For wired remote controller use model]
Start heating or cooling operation by pressing the TEST button twice on the remote controller. (Test-run mode)
<<Measurement>>
Measure the time from the start of outdoor fan running to the stop of compressor due to over current.
<<Judgment>>
For reference
0~10 seconds·····Abnormal (compressor short or poor contact)
(compressor lock-out)
10 seconds~5 minutes·····Abnormal (refrigerant circuit defect)
more than 5 minutes·····Normal



[SUZ-KA25/35VA(H).TH]

The thermistors in the outdoor unit are abnormal.

Ⓖ Check of outdoor thermistors

Disconnect the connectors CN641, CN642 and CN643 from the inverter P.C. board.
(Check the characteristics of each thermistor.)

Defrost thermistor RT61
Measure the resistance between CN641 ① and ②.

Discharge temperature thermistor RT62
Measure the resistance between CN641 ③ and ④.

Fin temperature thermistor RT64
Measure the resistance between CN642 ① and ②.

Ambient temperature thermistor RT65
Measure the resistance between CN643 ① and ②.

Is the resistance of thermistor normal? (Refer to 12-6.1.)
- No → Replace the thermistor except RT64. In case that RT64 is abnormal, replace the inverter P.C. board, since RT64 is combined with the inverter P.C. board.
- Yes → Reconnect the connectors CN641, CN642 and CN643. Turn ON the power supply and press EMERGENCY OPERATION switch (For wireless remote controller use model)./TEST button twice (For wired remote controller use model).

Does the unit operate 10 minutes or more?
- No → Replace the inverter P.C. board.
- Yes → OK. (Cause is poor contact.)

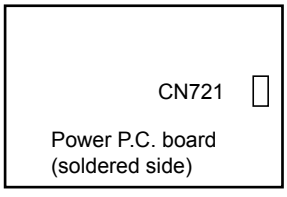
Ⓗ Check of R.V. coil

※ First of all, measure the resistance of R.V. coil to check if the coil is defective. Refer to 12-4..
※ In case CN721 is not connected or R.V. coil is open, voltage is generated between the terminal pins of the connector although no signal is being transmitted to R.V. coil. Check if CN721 is connected.

Unit operates COOL mode even if it is set to HEAT mode.

Disconnect connector (CN61) between compressor and intelligent power module.
[For wireless remote controller use model]
Turn ON the power supply and press the EMERGENCY OPERATION switch (HEAT switch).
[For wired remote controller use model]
Turn ON the power supply and press the TEST button twice (HEAT mode).

Is there 230V AC between CN721① and ② on the power P.C. board 3 minutes after the power supply is turned ON?
- No → Replace the power P.C. board.
- Yes → Replace the 4-way valve.



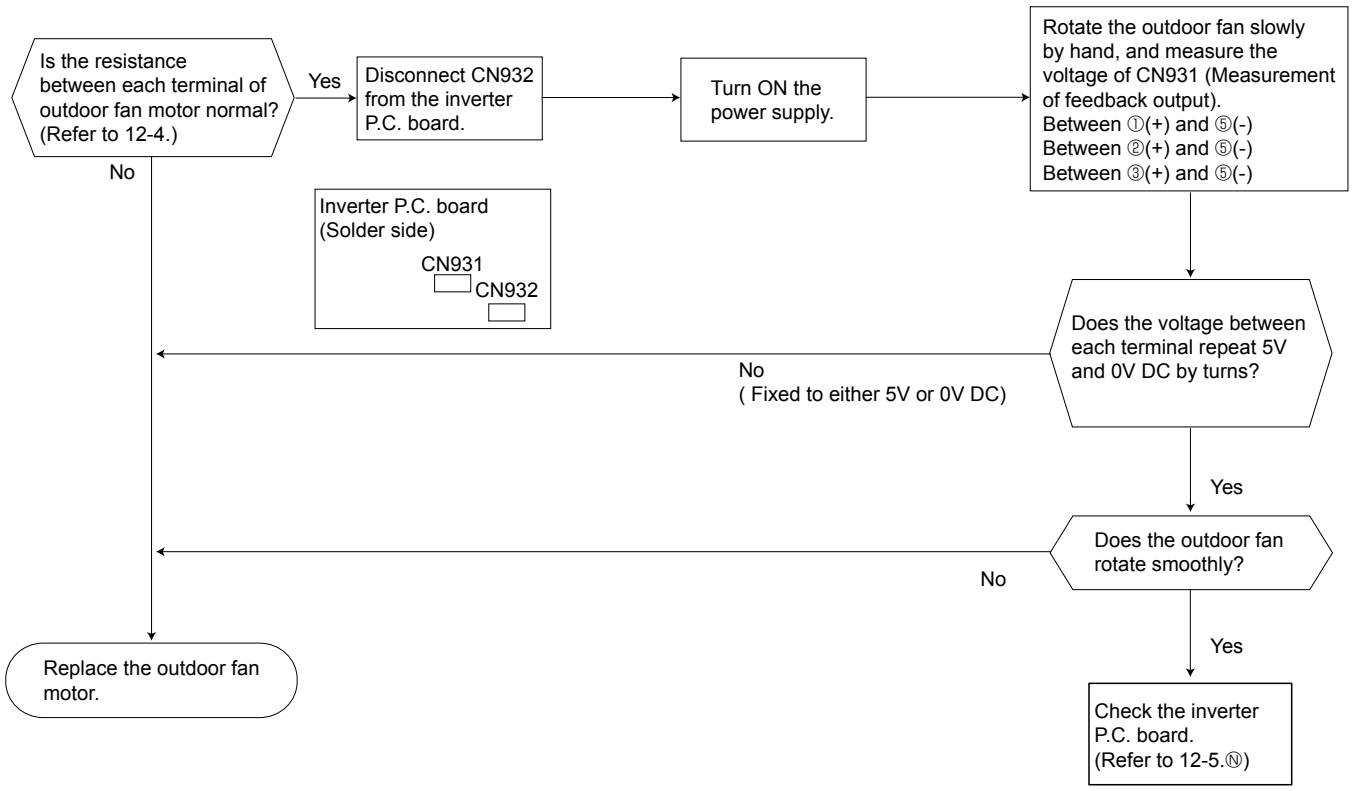
Unit operates HEAT mode even if it is set to COOL mode.

Disconnect connector (CN61) between compressor and intelligent power module.
[For wireless remote controller use model]
Turn ON the power supply and press the EMERGENCY OPERATION switch (COOL switch).
[For wired remote controller use model]
Turn ON the power supply and press the TEST button twice (COOL mode).

Is there 230V AC between CN721① and ② on the power P.C.board 3 minutes after the power supply is turned ON?
- Yes → Replace the power P.C. board.
- No → • Defective R.V. coil • Defective 4-way valve

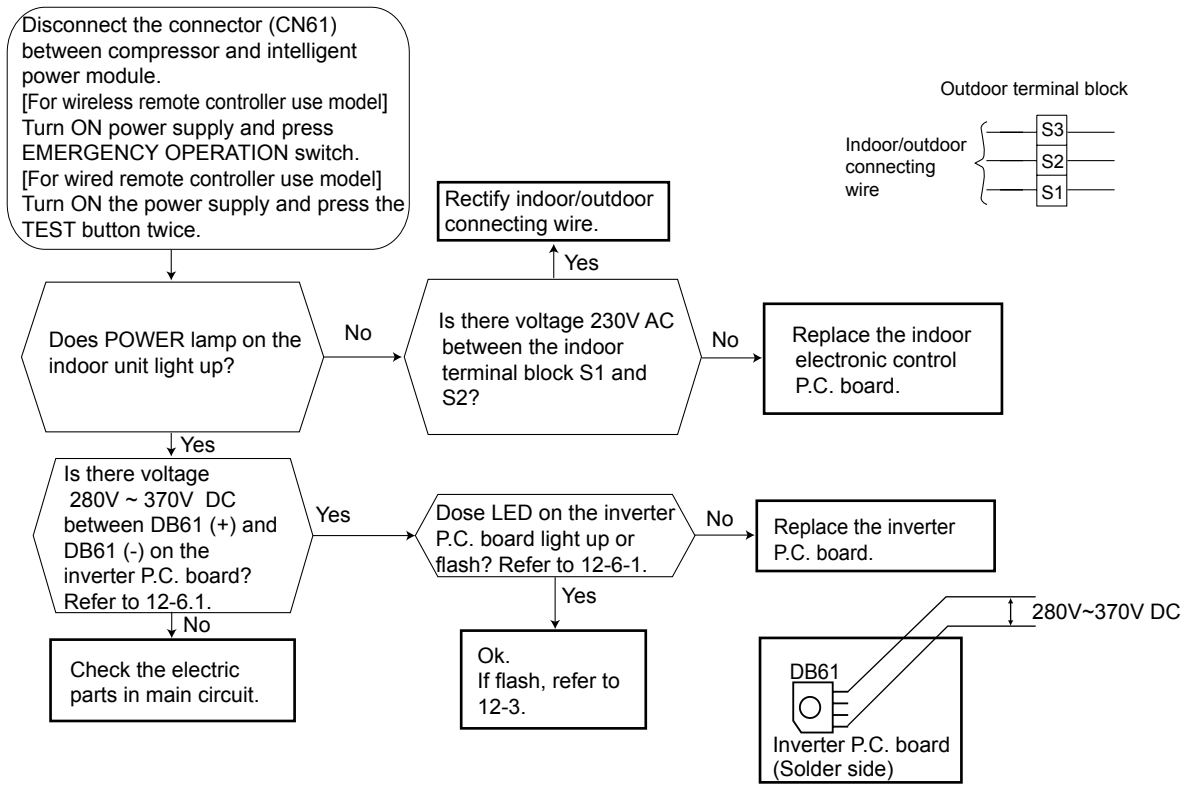
Outdoor fan motor does not operate.

Ⓘ Check of outdoor fan motor


Is the resistance between each terminal of outdoor fan motor normal? (Refer to 12-4.)
Yes
Disconnect CN932 from the inverter P.C. board.
Turn ON the power supply.
Rotate the outdoor fan slowly by hand, and measure the voltage of CN931 (Measurement of feedback output).
Between ①(+) and ⑤(-)
Between ②(+) and ⑤(-)
Between ③(+) and ⑤(-)
No
Inverter P.C. board (Solder side)
CN931
CN932
Does the voltage between each terminal repeat 5V and 0V DC by turns?
No
(Fixed to either 5V or 0V DC)
Yes
Does the outdoor fan rotate smoothly?
No
Yes
Replace the outdoor fan motor.
Check the inverter P.C. board. (Refer to 12-5.Ⓝ)

Inverter does not operate.

Ⓙ Check of power supply

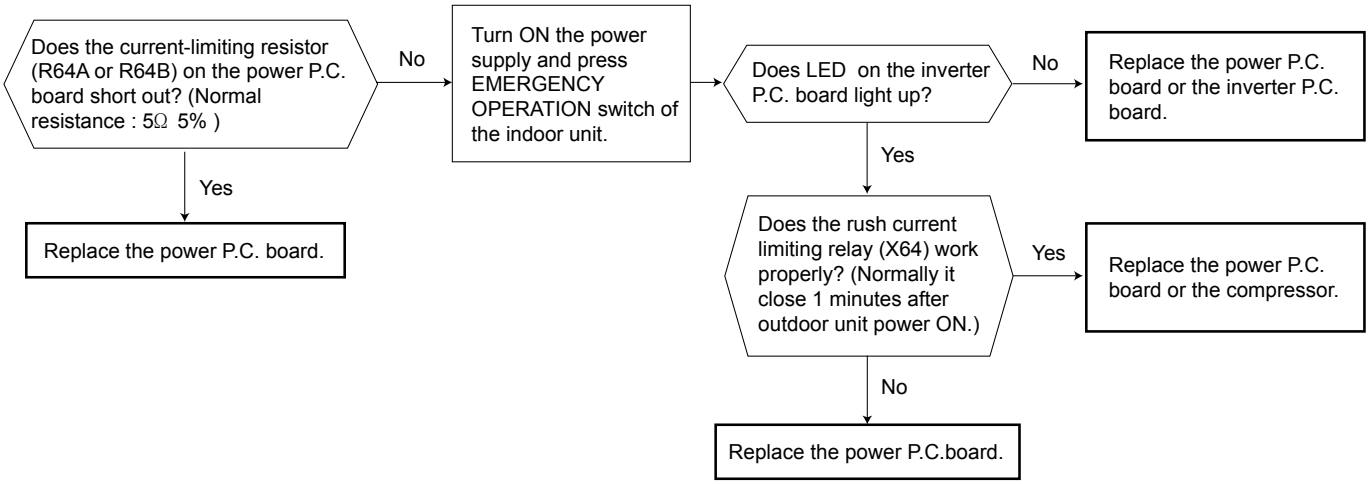

Disconnect the connector (CN61) between compressor and intelligent power module.
[For wireless remote controller use model]
Turn ON power supply and press EMERGENCY OPERATION switch.
[For wired remote controller use model]
Turn ON the power supply and press the TEST button twice.
Outdoor terminal block
Indoor/outdoor connecting wire
S3
S2
S1
Rectify indoor/outdoor connecting wire.
Yes
Does POWER lamp on the indoor unit light up?
No
Is there voltage 230V AC between the indoor terminal block S1 and S2?
No
Replace the indoor electronic control P.C. board.
Yes
Is there voltage 280V ~ 370V DC between DB61 (+) and DB61 (-) on the inverter P.C. board? Refer to 12-6.1.
Yes
Dose LED on the inverter P.C. board light up or flash? Refer to 12-6-1.
No
Replace the inverter P.C. board.
No
Check the electric parts in main circuit.
Yes
Ok.
If flash, refer to 12-3.
280V~370V DC
DB61
Inverter P.C. board (Solder side)

[SUZ-KA25/35VA(H).TH]

Outdoor unit does not operate at all or stops immediately due to over current.

Ⓚ Check of current limiting resistor

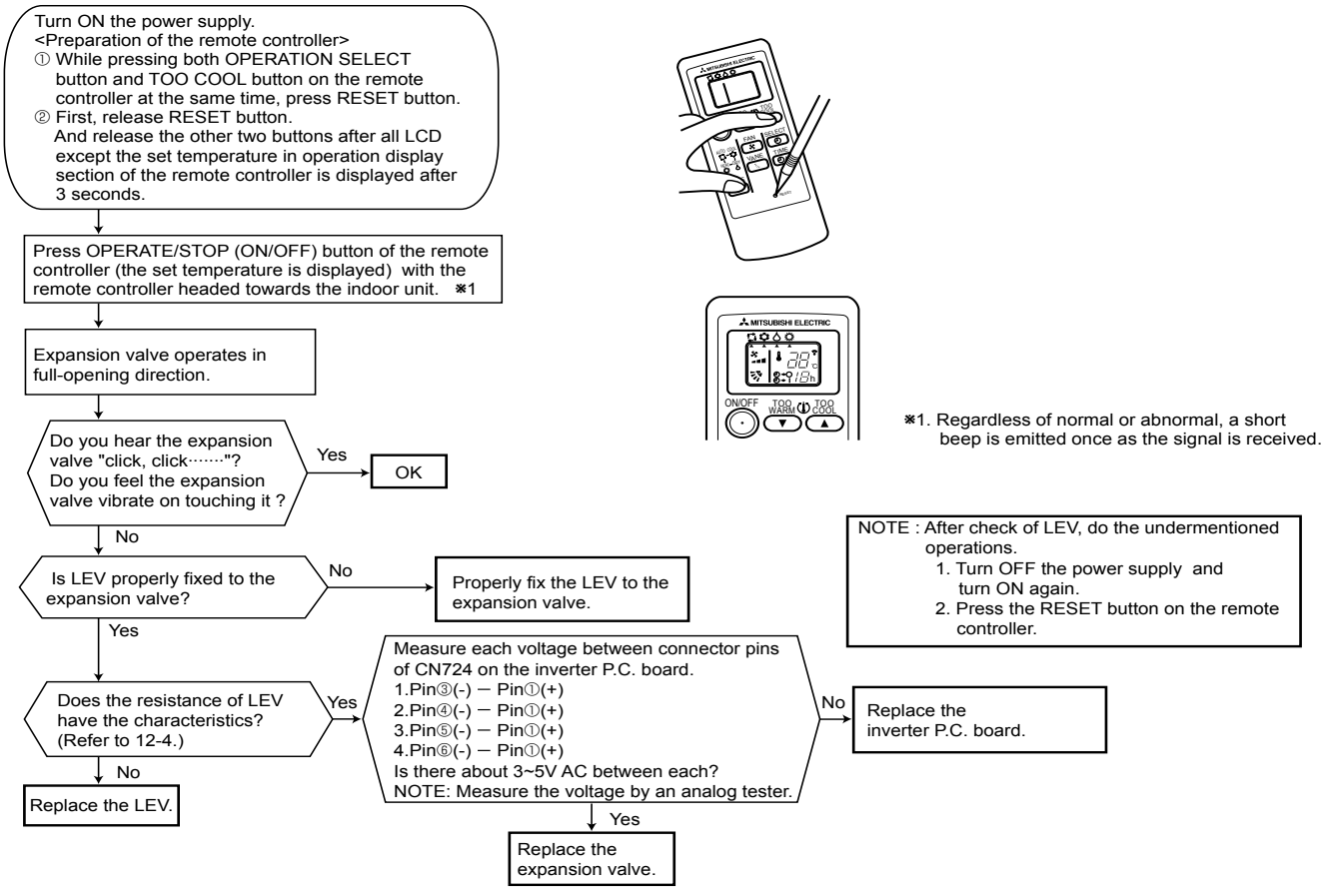
When the current-limiting resistor is open, the rush current limiting relay (X64) may not work properly.


Does the current-limiting resistor (R64A or R64B) on the power P.C. board short out? (Normal resistance : 5Ω 5%)
No
Turn ON the power supply and press EMERGENCY OPERATION switch of the indoor unit.
Does LED on the inverter P.C. board light up?
No
Replace the power P.C. board or the inverter P.C. board.
Yes
Yes
Replace the power P.C. board.
Does the rush current limiting relay (X64) work properly? (Normally it close 1 minutes after outdoor unit power ON.)
Yes
Replace the power P.C. board or the compressor.
No
Replace the power P.C.board.

- Check other electric parts in the main circuit together in the case of the defective current-limiting resistor.

Heating/Cooling does not work sufficiently.

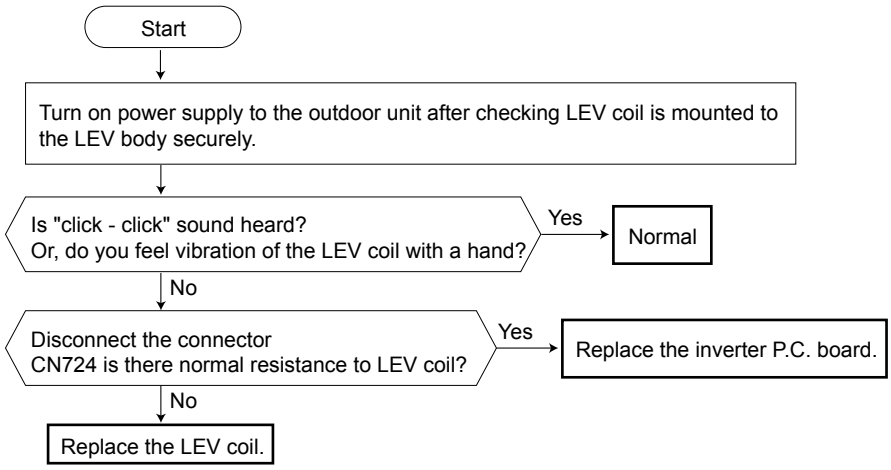
Ⓛ Check of LEV (Expansion valve) (For wireless remote controller use model)


Turn ON the power supply.
<Preparation of the remote controller>
① While pressing both OPERATION SELECT button and TOO COOL button on the remote controller at the same time, press RESET button.
② First, release RESET button.
And release the other two buttons after all LCD except the set temperature in operation display section of the remote controller is displayed after 3 seconds.
Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit. ※1
Expansion valve operates in full-opening direction.
Do you hear the expansion valve "click, click·····"? Do you feel the expansion valve vibrate on touching it ?
Yes
OK
No
Is LEV properly fixed to the expansion valve?
No
Properly fix the LEV to the expansion valve.
Yes
Does the resistance of LEV have the characteristics? (Refer to 12-4.)
Yes
Measure each voltage between connector pins of CN724 on the inverter P.C. board.
1.Pin③(-) ― Pin①(+)
2.Pin④(-) ― Pin①(+)
3.Pin⑤(-) ― Pin①(+)
4.Pin⑥(-) ― Pin①(+)
Is there about 3~5V AC between each?
NOTE: Measure the voltage by an analog tester.
No
Replace the inverter P.C. board.
No
Replace the LEV.
Yes
Replace the expansion valve.
MITSUBISHI ELECTRIC
ON/OFF
TOO WARM
TOO COOL

※1. Regardless of normal or abnormal, a short beep is emitted once as the signal is received.

NOTE : After check of LEV, do the undermentioned operations.
1. Turn OFF the power supply and turn ON again.
2. Press the RESET button on the remote controller.

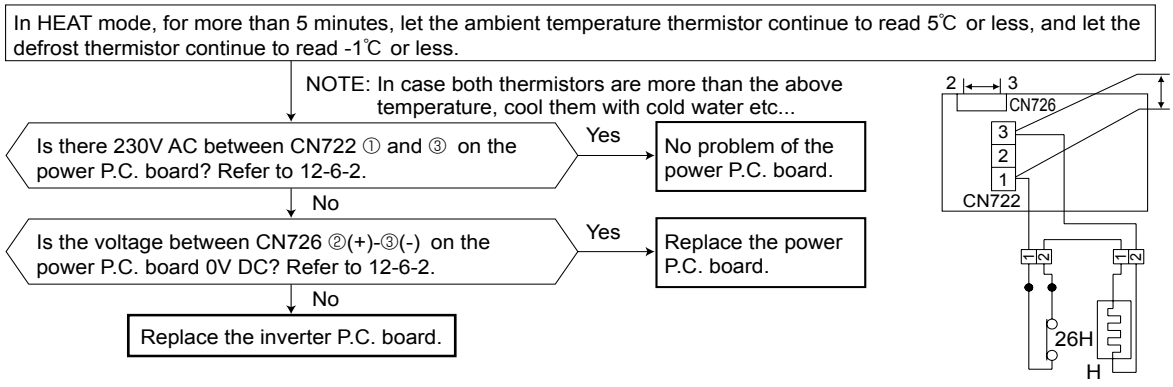
Ⓛ Check of LEV (Expansion valve) (For wired remote controller use model)


Start
Turn on power supply to the outdoor unit after checking LEV coil is mounted to the LEV body securely.
Is "click - click" sound heard?
Or, do you feel vibration of the LEV coil with a hand?
Yes
Normal
No
Disconnect the connector
CN724 is there normal resistance to LEV coil?
Yes
Replace the inverter P.C. board.
No
Replace the LEV coil.

Outdoor base gets frozen.

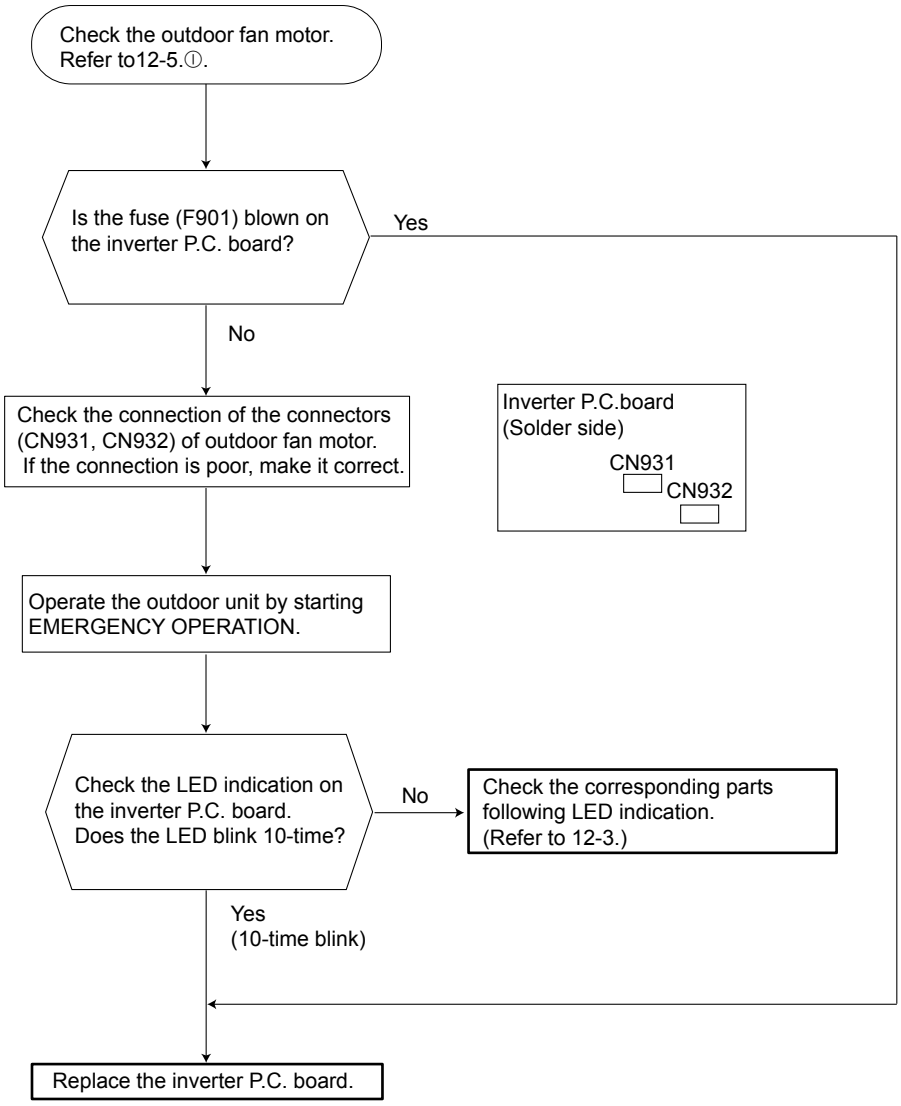
Ⓜ Check of defrost heater <SUZ-KA25VAH SUZ-KA35VAH>

Check the following points before checking electric continuity.
1) Does the resistance of ambient temperature thermistor have the characteristics? Refer to 12-6-1.
2) Is the resistance of defrost heater normal? Refer to 12-4.
3) Does the heater protector remain conducted (not open)?
4) Are both ambient temperature thermistor and circuit of defrost heater securely connected to connectors?


In HEAT mode, for more than 5 minutes, let the ambient temperature thermistor continue to read 5℃ or less, and let the defrost thermistor continue to read -1℃ or less.
NOTE: In case both thermistors are more than the above temperature, cool them with cold water etc...
Is there 230V AC between CN722 ① and ③ on the power P.C. board? Refer to 12-6-2.
Yes
No problem of the power P.C. board.
No
Is the voltage between CN726 ②(+)-③(-) on the power P.C. board 0V DC? Refer to 12-6-2.
Yes
Replace the power P.C. board.
No
Replace the inverter P.C. board.
2
3
CN726
230V AC
3
2
1
CN722
26H
H

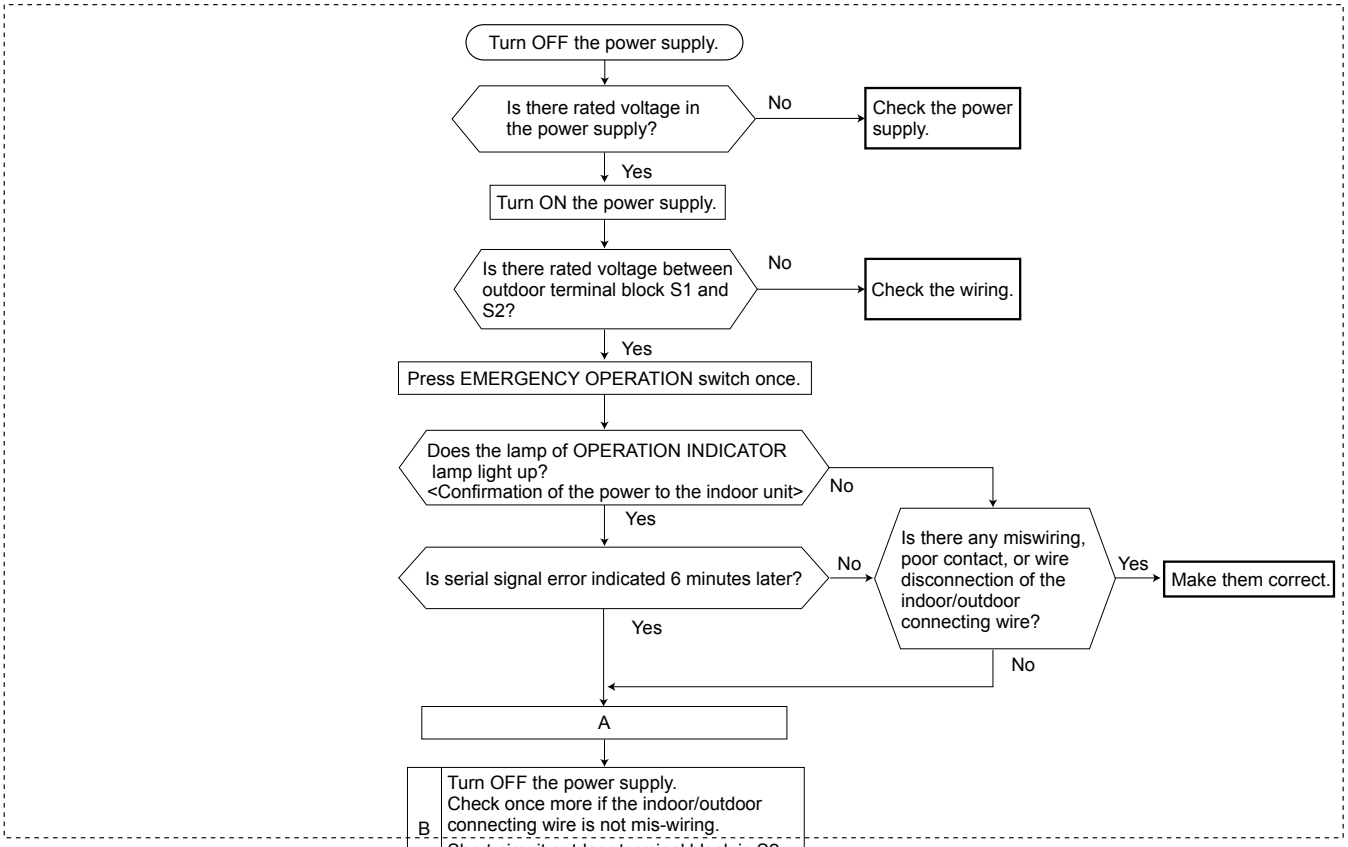
Outdoor fan motor does not operate, or stops immediately after starting up.

Ⓝ Check of inverter P.C. board


Check the outdoor fan motor.
Refer to12-5.①.
Is the fuse (F901) blown on the inverter P.C. board?
Yes
No
Check the connection of the connectors (CN931, CN932) of outdoor fan motor.
If the connection is poor, make it correct.
Inverter P.C.board
(Solder side)
CN931
CN932
Operate the outdoor unit by starting EMERGENCY OPERATION.
Check the LED indication on the inverter P.C. board.
Does the LED blink 10-time?
No
Check the corresponding parts following LED indication.
(Refer to 12-3.)
Yes
(10-time blink)
Replace the inverter P.C. board.

ⓞ How to check miswiring and serial signal error (when outdoor unit does not work)

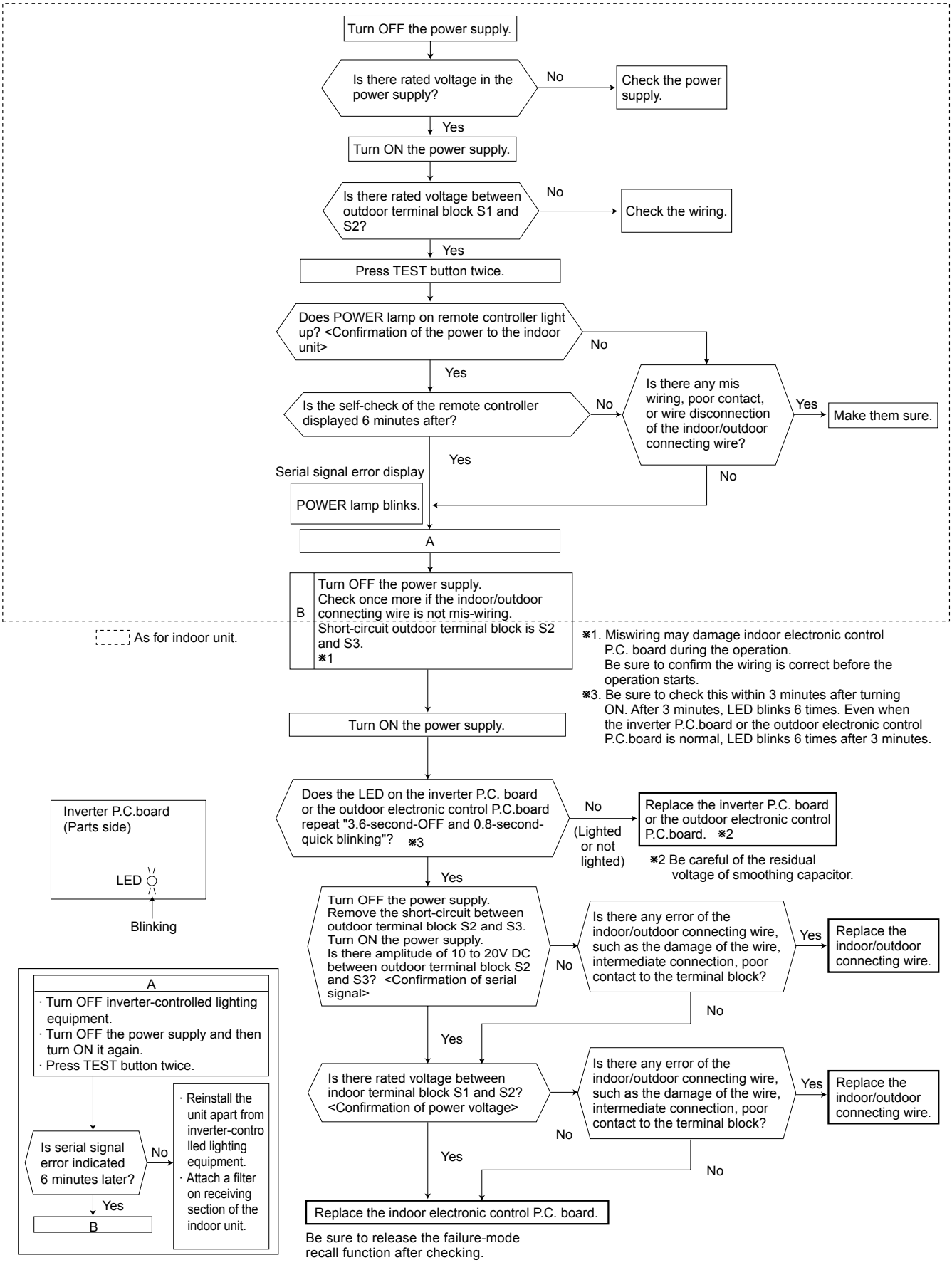
(For wireless remote controller use model)


Turn OFF the power supply.
Is there rated voltage in the power supply?
No
Check the power supply.
Yes
Turn ON the power supply.
Is there rated voltage between outdoor terminal block S1 and S2?
No
Check the wiring.
Yes
Press EMERGENCY OPERATION switch once.
Does the lamp of OPERATION INDICATOR lamp light up? <Confirmation of the power to the indoor unit>
No
Yes
Is serial signal error indicated 6 minutes later?
No
Is there any miswiring, poor contact, or wire disconnection of the indoor/outdoor connecting wire?
Yes
Make them correct.
Yes
No
A
B
Turn OFF the power supply.
Check once more if the indoor/outdoor connecting wire is not mis-wiring.
Short-circuit outdoor terminal block is S2 and S3. ※1
As for indoor unit.
※1. Miswiring may damage indoor electronic control P.C. board during the operation.
Be sure to confirm the wiring is correct before the operation starts.
※3. Be sure to check this within 3 minutes after turning ON. After 3 minutes, LED blinks 6 times. Even when the inverter P.C.board or the outdoor electronic control P.C.board is normal, LED blinks 6 times after 3 minutes.
Turn ON the power supply.
Does the LED on the inverter P.C. board or the outdoor electronic control P.C.board repeat "3.6-second-OFF and 0.8-second-quick blinking"? ※3
No
(Lighted or not lighted)
Replace the inverter P.C. board or the outdoor electronic control P.C.board. ※2
※2 Be careful of the residual voltage of smoothing capacitor.
Yes
Inverter P.C.board (Parts side)
LED
Blinking
Turn OFF the power supply.
Remove the short-circuit between outdoor terminal block S2 and S3.
Turn ON the power supply.
Is there amplitude of 10 to 20V DC between outdoor terminal block S2 and S3? <Confirmation of serial signal>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Is there rated voltage between indoor terminal block S1 and S2? <Confirmation of power voltage>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Replace the indoor electronic control P.C. board.
Be sure to release the failure-mode recall function after checking.
A
· Turn OFF inverter-controlled lighting equipment.
· Turn OFF the power supply and then turn ON it again.
· Press EMERGENCY OPERATION switch.
Is serial signal error indicated 6 minutes later?
No
· Reinstall the unit apart from inverter-controlled lighting equipment.
· Attach a filter on receiving section of the indoor unit.
Yes
B

[SUZ-KA25/35VA(H).TH]

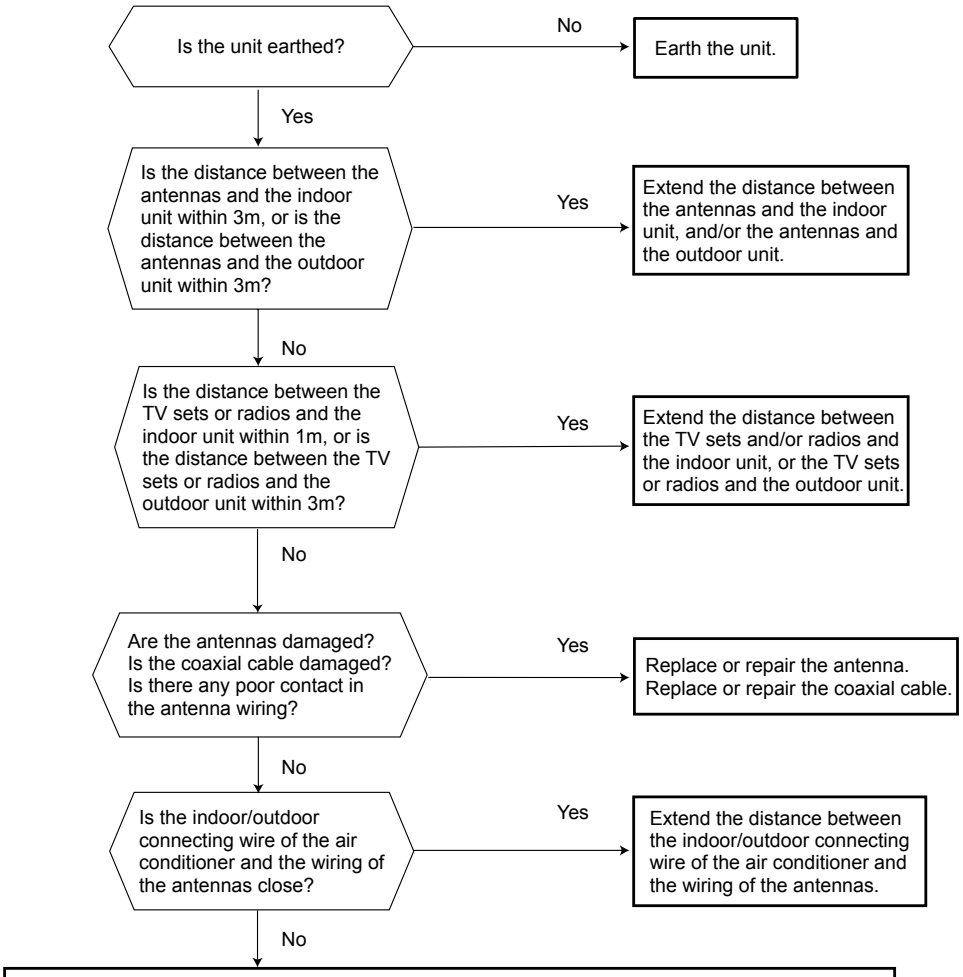
Ⓞ How to check miswiring and serial signal error (when outdoor unit does not work)

(For wired remote controller use model)


Turn OFF the power supply.
Is there rated voltage in the power supply?
No
Check the power supply.
Yes
Turn ON the power supply.
Is there rated voltage between outdoor terminal block S1 and S2?
No
Check the wiring.
Yes
Press TEST button twice.
Does POWER lamp on remote controller light up? <Confirmation of the power to the indoor unit>
No
Yes
Is the self-check of the remote controller displayed 6 minutes after?
No
Is there any mis wiring, poor contact, or wire disconnection of the indoor/outdoor connecting wire?
Yes
Make them sure.
No
Yes
Serial signal error display
POWER lamp blinks.
A
B
Turn OFF the power supply.
Check once more if the indoor/outdoor connecting wire is not mis-wiring.
Short-circuit outdoor terminal block is S2 and S3.
※1
As for indoor unit.
※1. Miswiring may damage indoor electronic control P.C. board during the operation.
Be sure to confirm the wiring is correct before the operation starts.
※3. Be sure to check this within 3 minutes after turning ON. After 3 minutes, LED blinks 6 times. Even when the inverter P.C.board or the outdoor electronic control P.C.board is normal, LED blinks 6 times after 3 minutes.
Turn ON the power supply.
Inverter P.C.board (Parts side)
LED
Blinking
Does the LED on the inverter P.C. board or the outdoor electronic control P.C.board repeat "3.6-second-OFF and 0.8-second-quick blinking"? ※3
No
(Lighted or not lighted)
Replace the inverter P.C. board or the outdoor electronic control P.C.board. ※2
※2 Be careful of the residual voltage of smoothing capacitor.
Yes
Turn OFF the power supply.
Remove the short-circuit between outdoor terminal block S2 and S3.
Turn ON the power supply.
Is there amplitude of 10 to 20V DC between outdoor terminal block S2 and S3? <Confirmation of serial signal>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Is there rated voltage between indoor terminal block S1 and S2? <Confirmation of power voltage>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Replace the indoor electronic control P.C. board.
Be sure to release the failure-mode recall function after checking.
A
· Turn OFF inverter-controlled lighting equipment.
· Turn OFF the power supply and then turn ON it again.
· Press TEST button twice.
Is serial signal error indicated 6 minutes later?
No
· Reinstall the unit apart from inverter-controlled lighting equipment.
· Attach a filter on receiving section of the indoor unit.
Yes
B

[SUZ-KA25/35VA(H).TH SUZ-KA50/60/71VA(1).TH SUZ-KA60VAR2.TH]

Ⓟ Electromagnetic noise enters into TV sets or radios


Is the unit earthed?
No
Earth the unit.
Yes
Is the distance between the antennas and the indoor unit within 3m, or is the distance between the antennas and the outdoor unit within 3m?
Yes
Extend the distance between the antennas and the indoor unit, and/or the antennas and the outdoor unit.
No
Is the distance between the TV sets or radios and the indoor unit within 1m, or is the distance between the TV sets or radios and the outdoor unit within 3m?
Yes
Extend the distance between the TV sets and/or radios and the indoor unit, or the TV sets or radios and the outdoor unit.
No
Are the antennas damaged? Is the coaxial cable damaged? Is there any poor contact in the antenna wiring?
Yes
Replace or repair the antenna. Replace or repair the coaxial cable.
No
Is the indoor/outdoor connecting wire of the air conditioner and the wiring of the antennas close?
Yes
Extend the distance between the indoor/outdoor connecting wire of the air conditioner and the wiring of the antennas.
No

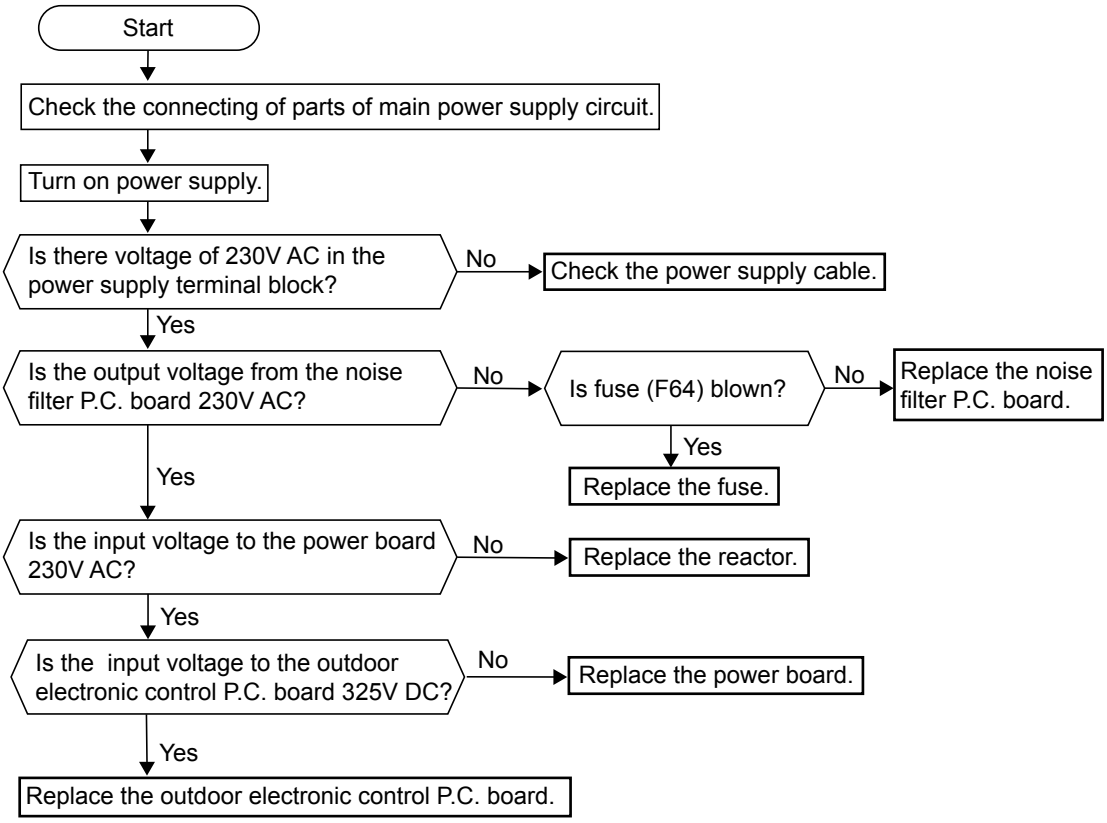
Even if all of the above conditions are fulfilled, the electromagnetic noise may enter, depending on the electric field strength or the installation condition (combination of specific conditions such as antennas or wiring).
Check the followings before asking for service.

1.Devices affected by the electromagnetic noise
TV sets, radios (FM/AM broadcast, shortwave)
2.Channel, frequency, broadcast station affected by the electromagnetic noise
3.Channel, frequency, broadcast station unaffected by the electromagnetic noise
4.Layout of ;
indoor/outdoor unit of the air conditioner, indoor/outdoor wiring, grounding wire, antennas, wiring from antennas, receiver
5.Electric field intensity of the broadcast station affected by the electromagnetic noise
6.Presence or absence of amplifier such as booster
7.Operation condition of air conditioner when the electromagnetic noise enters in.
1)Turn OFF the power supply once, and then turn ON the power supply. In this situation check for the electromagnetic noise.
2)Within 3 minutes after turning ON the power supply, press OPERATE/STOP (ON/OFF) button on the remote controller for power ON, and check for the electromagnetic noise.
3)After a short time (3 minutes later after turning ON), the outdoor unit starts running. During operation, check for the electromagnetic noise.
4)Press OPERATE/STOP (ON/OFF) button on the remote controller for power OFF, when the outdoor unit stops but the indoor/outdoor communication still runs on. In this situation check for the electromagnetic noise.

After checking the above, consult the service representative.

Outdoor unit does not operate. (LED display: display OFF) **[SUZ-KA50/60/71VA(1).TH SUZ-KA60VAR2.TH]**

Q Check of power supply


Start
Check the connecting of parts of main power supply circuit.
Turn on power supply.
Is there voltage of 230V AC in the power supply terminal block?
No
Check the power supply cable.
Yes
Is the output voltage from the noise filter P.C. board 230V AC?
No
Is fuse (F64) blown?
No
Replace the noise filter P.C. board.
Yes
Replace the fuse.
Yes
Is the input voltage to the power board 230V AC?
No
Replace the reactor.
Yes
Is the input voltage to the outdoor electronic control P.C. board 325V DC?
No
Replace the power board.
Yes
Replace the outdoor electronic control P.C. board.

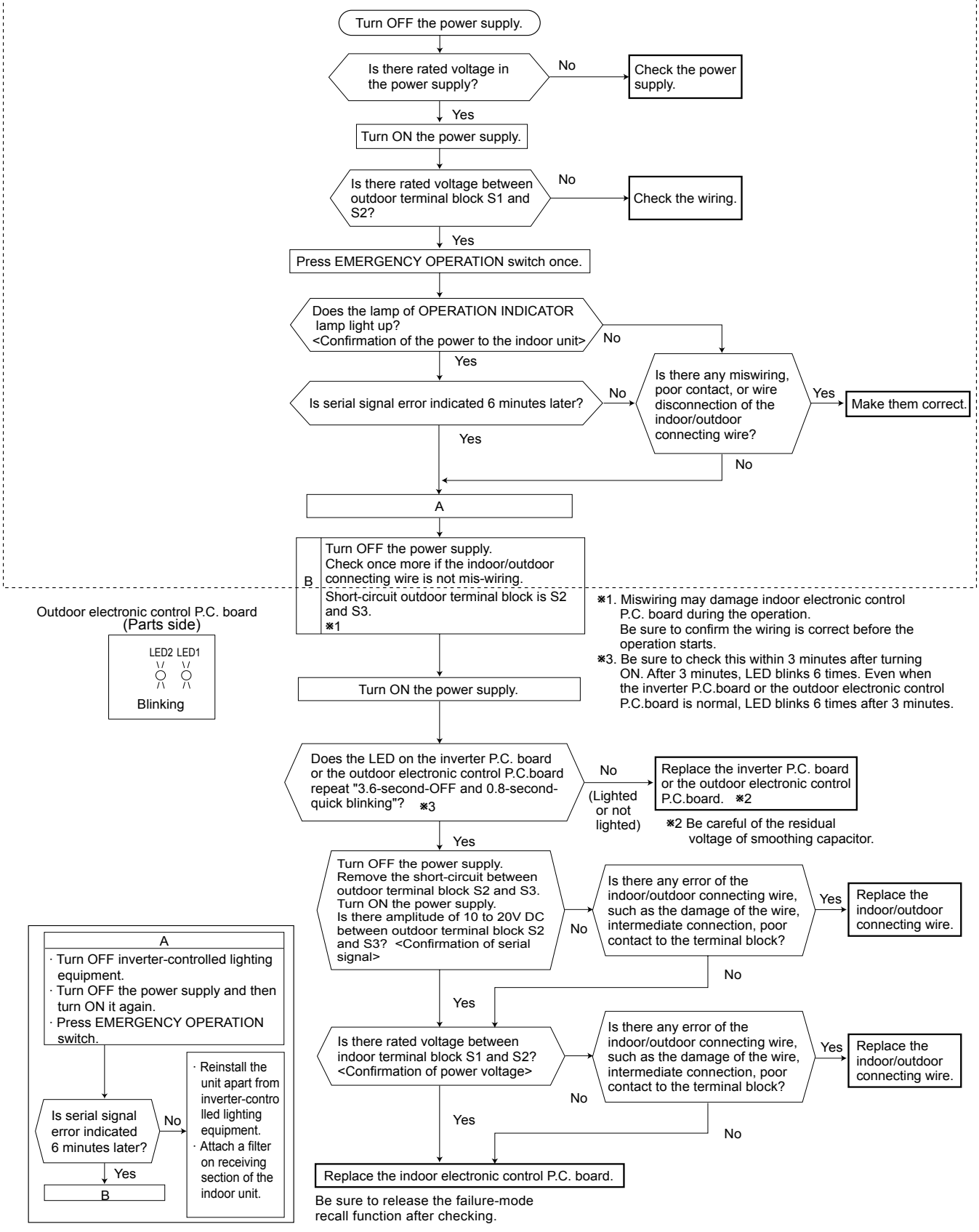
[SUZ-KA50/60/71VA(1).TH SUZ-KA60VAR2.TH]

- **When unit cannot operate neither by the remote controller nor by EMERGENCY OPERATION switch. Indoor unit does not operate.**
- **Outdoor unit does not operate.**

Ⓡ How to check miswiring and serial signal error (when outdoor unit does not work)

(For wireless remote controller use model)

As for indoor unit.

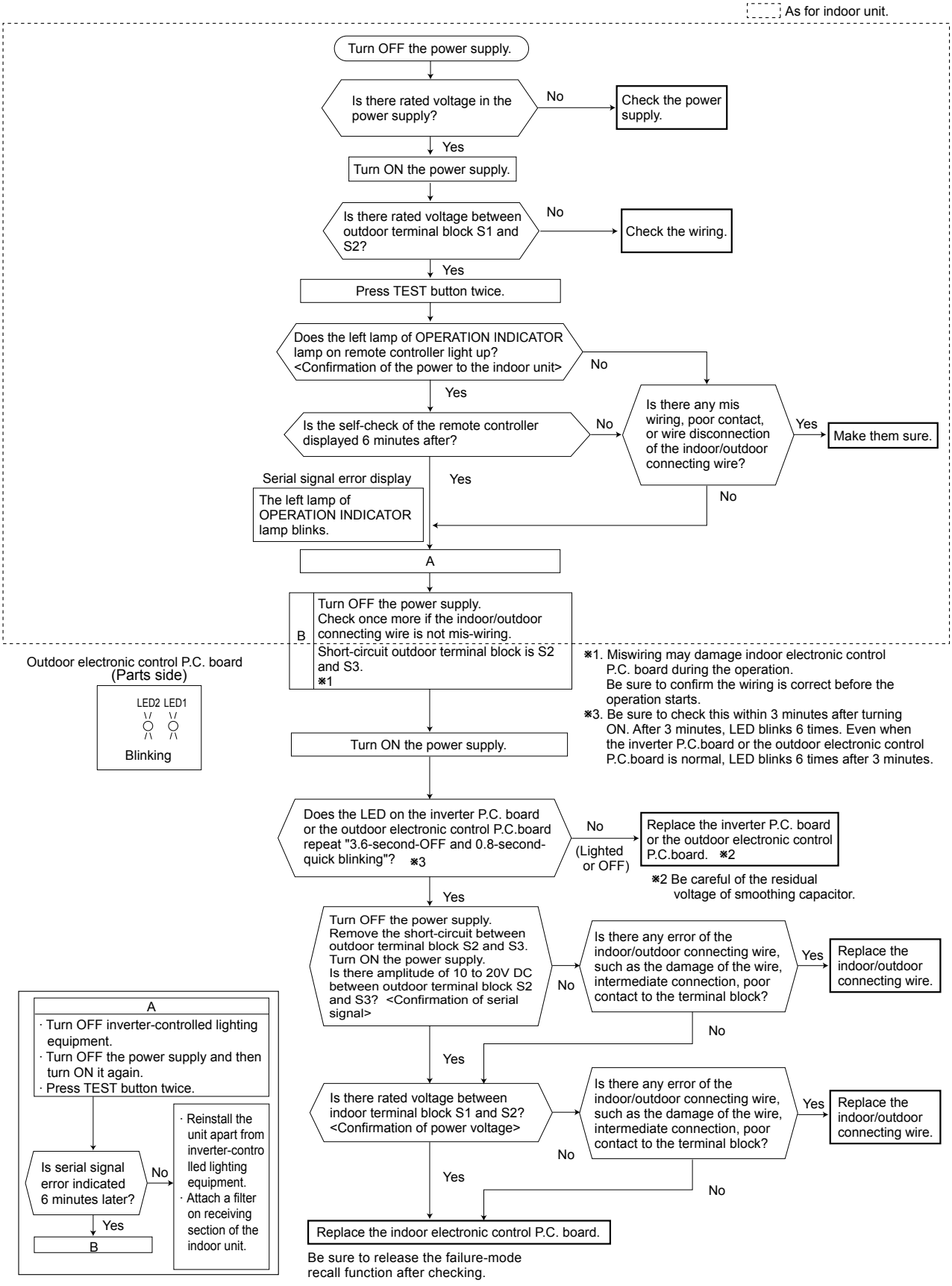

Turn OFF the power supply.
Is there rated voltage in the power supply?
No
Check the power supply.
Yes
Turn ON the power supply.
Is there rated voltage between outdoor terminal block S1 and S2?
No
Check the wiring.
Yes
Press EMERGENCY OPERATION switch once.
Does the lamp of OPERATION INDICATOR lamp light up? <Confirmation of the power to the indoor unit>
No
Yes
Is serial signal error indicated 6 minutes later?
No
Is there any miswiring, poor contact, or wire disconnection of the indoor/outdoor connecting wire?
Yes
Make them correct.
Yes
No
A
B
Turn OFF the power supply.
Check once more if the indoor/outdoor connecting wire is not mis-wiring.
Short-circuit outdoor terminal block is S2 and S3. ※1
※1. Miswiring may damage indoor electronic control P.C. board during the operation. Be sure to confirm the wiring is correct before the operation starts.
※3. Be sure to check this within 3 minutes after turning ON. After 3 minutes, LED blinks 6 times. Even when the inverter P.C.board or the outdoor electronic control P.C.board is normal, LED blinks 6 times after 3 minutes.
Outdoor electronic control P.C. board (Parts side)
LED2 LED1
Blinking
Turn ON the power supply.
Does the LED on the inverter P.C. board or the outdoor electronic control P.C.board repeat "3.6-second-OFF and 0.8-second-quick blinking"? ※3
No
(Lighted or not lighted)
Replace the inverter P.C. board or the outdoor electronic control P.C.board. ※2
※2 Be careful of the residual voltage of smoothing capacitor.
Yes
Turn OFF the power supply.
Remove the short-circuit between outdoor terminal block S2 and S3.
Turn ON the power supply.
Is there amplitude of 10 to 20V DC between outdoor terminal block S2 and S3? <Confirmation of serial signal>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Is there rated voltage between indoor terminal block S1 and S2? <Confirmation of power voltage>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Replace the indoor electronic control P.C. board.
Be sure to release the failure-mode recall function after checking.
A
· Turn OFF inverter-controlled lighting equipment.
· Turn OFF the power supply and then turn ON it again.
· Press EMERGENCY OPERATION switch.
Is serial signal error indicated 6 minutes later?
No
· Reinstall the unit apart from inverter-controlled lighting equipment.
· Attach a filter on receiving section of the indoor unit.
Yes
B

[SUZ-KA50/60/71VA(1).TH SUZ-KA60VAR2.TH]

- **When unit cannot operate neither by the remote controller. Indoor unit does not operate.**
- **Outdoor unit does not operate.**

Ⓡ How to check miswiring and serial signal error (when outdoor unit does not work)

(For wired remote controller use model)

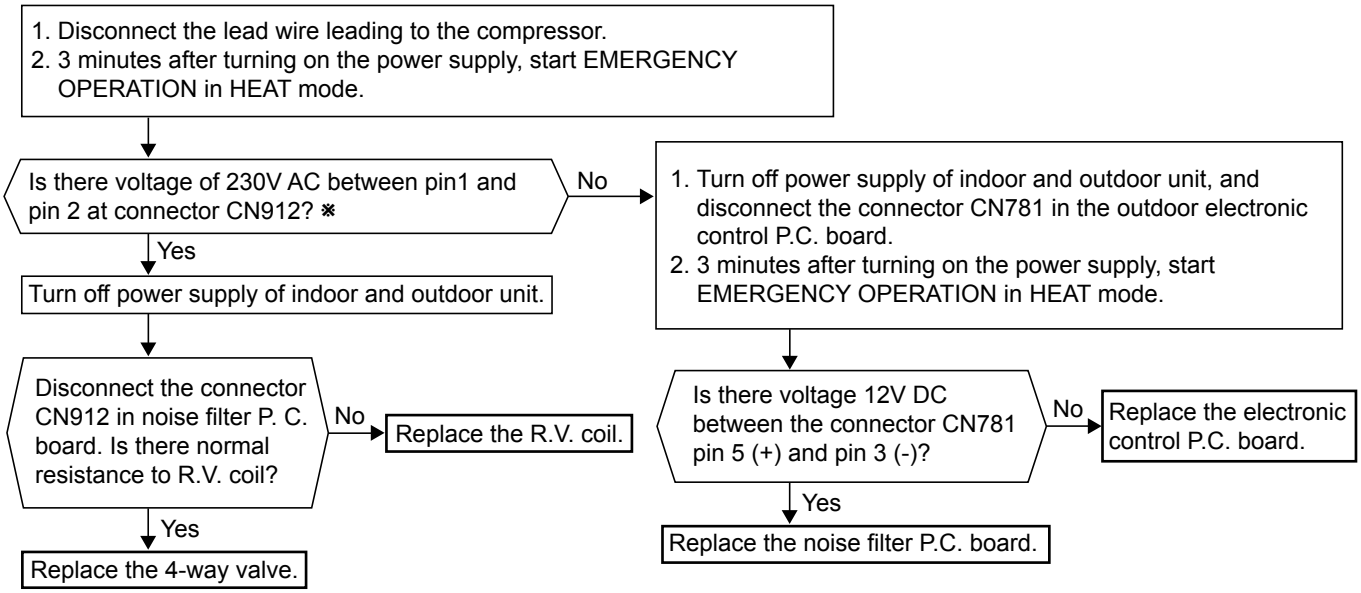

As for indoor unit.
Turn OFF the power supply.
Is there rated voltage in the power supply?
No
Check the power supply.
Yes
Turn ON the power supply.
Is there rated voltage between outdoor terminal block S1 and S2?
No
Check the wiring.
Yes
Press TEST button twice.
Does the left lamp of OPERATION INDICATOR lamp on remote controller light up? <Confirmation of the power to the indoor unit>
No
Yes
Is the self-check of the remote controller displayed 6 minutes after?
No
Is there any mis wiring, poor contact, or wire disconnection of the indoor/outdoor connecting wire?
Yes
Make them sure.
No
Serial signal error display
The left lamp of OPERATION INDICATOR lamp blinks.
Yes
A
B
Turn OFF the power supply.
Check once more if the indoor/outdoor connecting wire is not mis-wiring.
Short-circuit outdoor terminal block is S2 and S3.
※1
※1. Miswiring may damage indoor electronic control P.C. board during the operation.
Be sure to confirm the wiring is correct before the operation starts.
※3. Be sure to check this within 3 minutes after turning ON. After 3 minutes, LED blinks 6 times. Even when the inverter P.C.board or the outdoor electronic control P.C.board is normal, LED blinks 6 times after 3 minutes.
Outdoor electronic control P.C. board
(Parts side)
LED2 LED1
Blinking
Turn ON the power supply.
Does the LED on the inverter P.C. board or the outdoor electronic control P.C.board repeat "3.6-second-OFF and 0.8-second-quick blinking"? ※3
No
(Lighted or OFF)
Replace the inverter P.C. board or the outdoor electronic control P.C.board. ※2
※2 Be careful of the residual voltage of smoothing capacitor.
Yes
Turn OFF the power supply.
Remove the short-circuit between outdoor terminal block S2 and S3.
Turn ON the power supply.
Is there amplitude of 10 to 20V DC between outdoor terminal block S2 and S3? <Confirmation of serial signal>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Is there rated voltage between indoor terminal block S1 and S2? <Confirmation of power voltage>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Replace the indoor electronic control P.C. board.
Be sure to release the failure-mode recall function after checking.
A
· Turn OFF inverter-controlled lighting equipment.
· Turn OFF the power supply and then turn ON it again.
· Press TEST button twice.
Is serial signal error indicated 6 minutes later?
No
· Reinstall the unit apart from inverter-controlled lighting equipment.
· Attach a filter on receiving section of the indoor unit.
Yes
B

[SUZ-KA50/60/71VA(1).TH SUZ-KA60VAR2.TH]

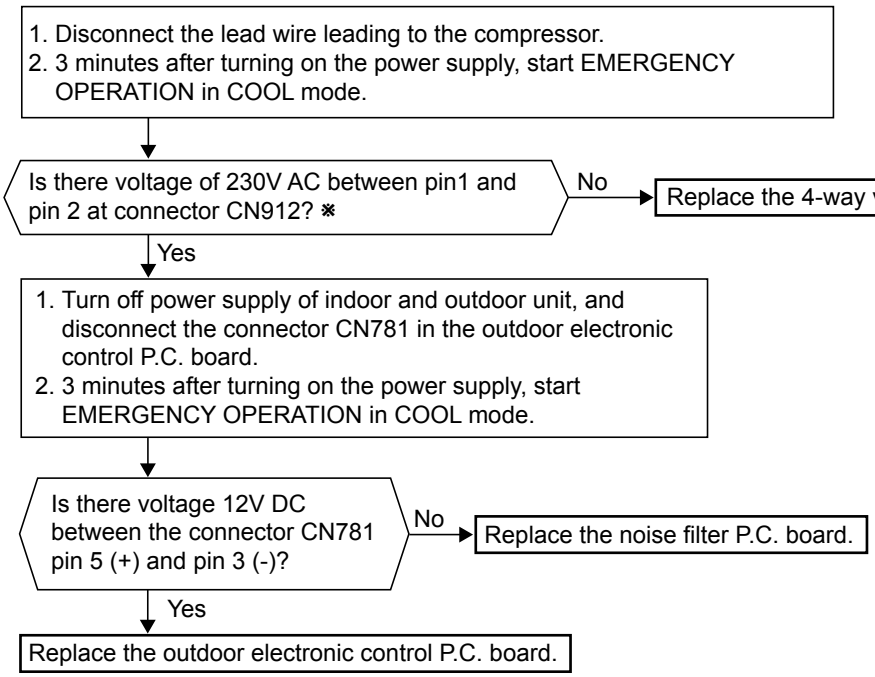
The cooling operation or heating operation does not operate. (LED display: Both LED1 and LED2 lighting)

Ⓢ Check of R.V. coil

• When heating operation does not work.


1. Disconnect the lead wire leading to the compressor.
2. 3 minutes after turning on the power supply, start EMERGENCY OPERATION in HEAT mode.
Is there voltage of 230V AC between pin1 and pin 2 at connector CN912? ※
No
1. Turn off power supply of indoor and outdoor unit, and disconnect the connector CN781 in the outdoor electronic control P.C. board.
2. 3 minutes after turning on the power supply, start EMERGENCY OPERATION in HEAT mode.
Yes
Turn off power supply of indoor and outdoor unit.
Disconnect the connector CN912 in noise filter P. C. board. Is there normal resistance to R.V. coil?
No
Replace the R.V. coil.
Is there voltage 12V DC between the connector CN781 pin 5 (+) and pin 3 (-)?
No
Replace the electronic control P.C. board.
Yes
Replace the noise filter P.C. board.
Yes
Replace the 4-way valve.

• When cooling operation does not work.


1. Disconnect the lead wire leading to the compressor.
2. 3 minutes after turning on the power supply, start EMERGENCY OPERATION in COOL mode.
Is there voltage of 230V AC between pin1 and pin 2 at connector CN912? ※
No
Replace the 4-way valve.
Yes
1. Turn off power supply of indoor and outdoor unit, and disconnect the connector CN781 in the outdoor electronic control P.C. board.
2. 3 minutes after turning on the power supply, start EMERGENCY OPERATION in COOL mode.
Is there voltage 12V DC between the connector CN781 pin 5 (+) and pin 3 (-)?
No
Replace the noise filter P.C. board.
Yes
Replace the outdoor electronic control P.C. board.

※ If the connector CN912 is not connected or R.V. coil is open, voltage occurs between terminals even when the control is OFF.

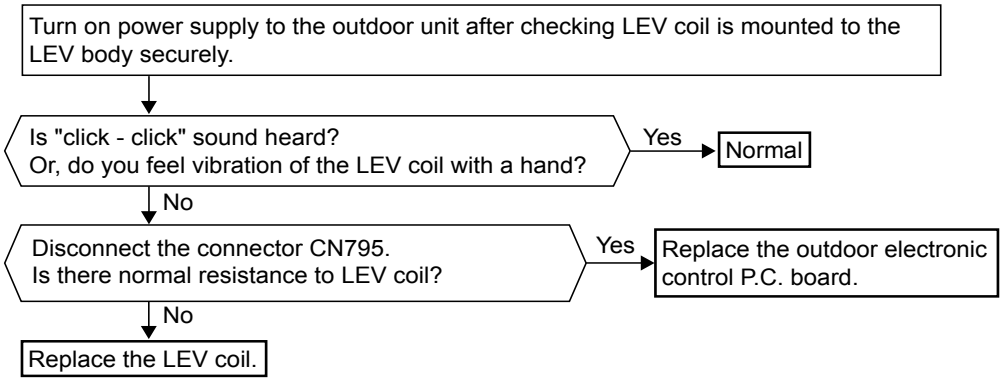
[SUZ-KA50/60/71VA(1).TH SUZ-KA60VAR2.TH]

- **When cooling, heat exchanger of non-operating indoor unit frosts.**
- **When heating, non-operating indoor unit get warm.**

Ⓣ Check of LEV

LED display:

LED1	LED2
Lighting	Lighting
6 time	Goes out

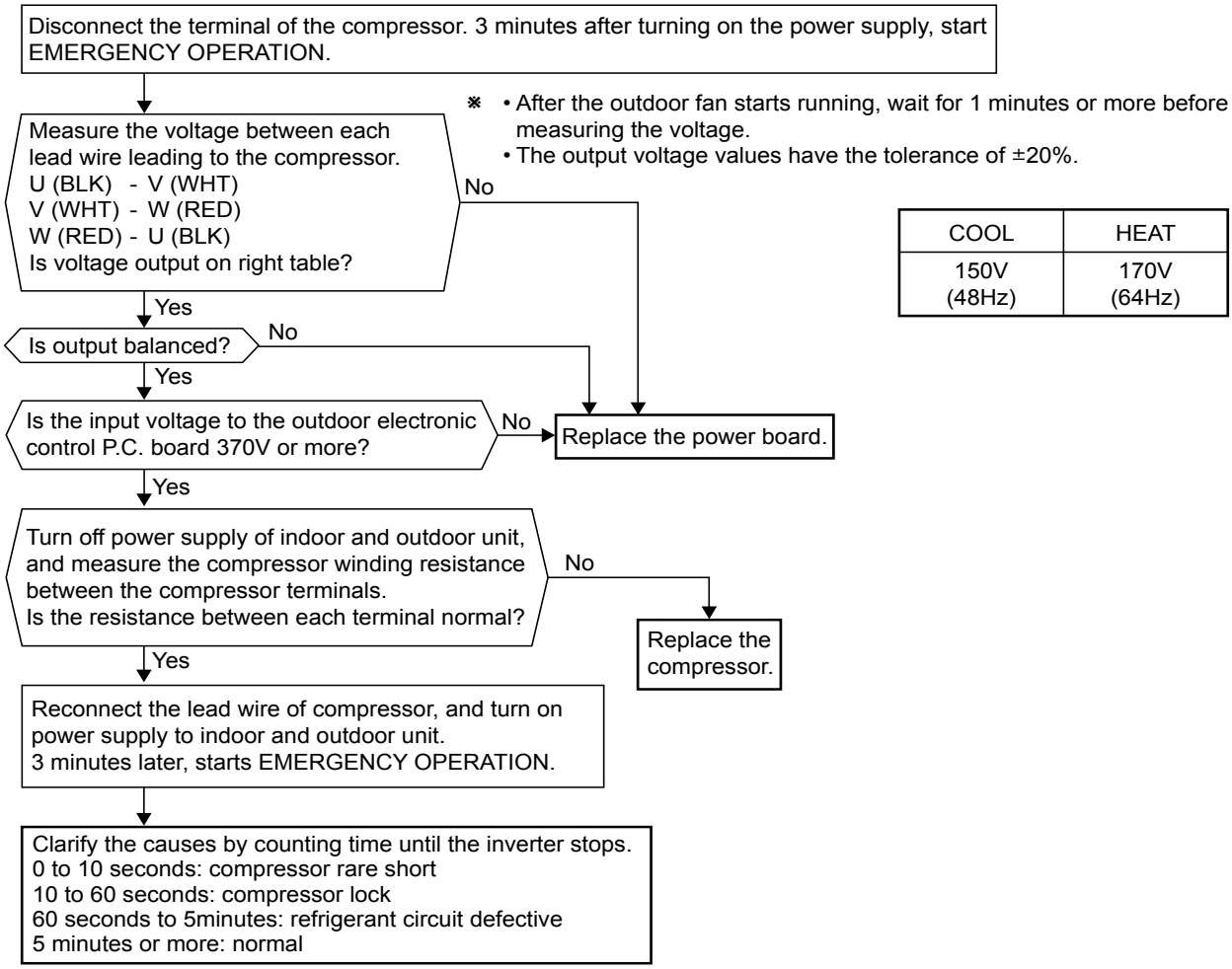

Turn on power supply to the outdoor unit after checking LEV coil is mounted to the LEV body securely.
Is "click - click" sound heard?
Or, do you feel vibration of the LEV coil with a hand?
Yes
Normal
No
Disconnect the connector CN795.
Is there normal resistance to LEV coil?
Yes
Replace the outdoor electronic control P.C. board.
No
Replace the LEV coil.

- **When heating, room does not get warm.**
- **When cooling, room does not get cool.**

Ⓤ How to check inverter/ compressor

LED display:

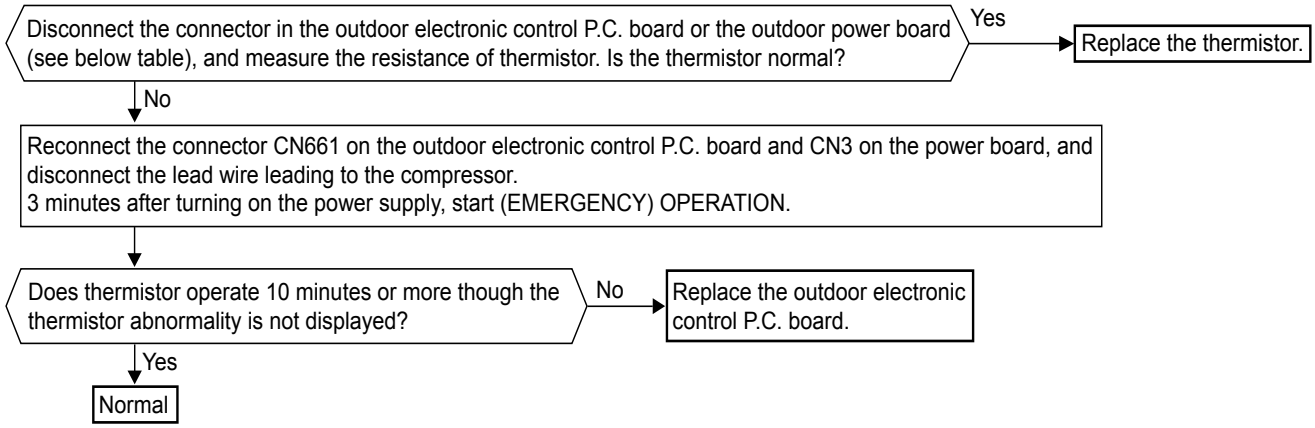
LED1	LED2
Lighting	Lighting
Lighting	Twice
Twice	Goes out


Disconnect the terminal of the compressor. 3 minutes after turning on the power supply, start EMERGENCY OPERATION.
※ • After the outdoor fan starts running, wait for 1 minutes or more before measuring the voltage.
• The output voltage values have the tolerance of ±20%.
Measure the voltage between each lead wire leading to the compressor.
U (BLK) - V (WHT)
V (WHT) - W (RED)
W (RED) - U (BLK)
Is voltage output on right table?
No
Yes
Is output balanced?
No
Yes
Is the input voltage to the outdoor electronic control P.C. board 370V or more?
No
Replace the power board.
Yes
Turn off power supply of indoor and outdoor unit, and measure the compressor winding resistance between the compressor terminals.
Is the resistance between each terminal normal?
No
Replace the compressor.
Yes
Reconnect the lead wire of compressor, and turn on power supply to indoor and outdoor unit.
3 minutes later, starts EMERGENCY OPERATION.
Clarify the causes by counting time until the inverter stops.
0 to 10 seconds: compressor rare short
10 to 60 seconds: compressor lock
60 seconds to 5minutes: refrigerant circuit defective
5 minutes or more: normal

COOL	HEAT
150V (48Hz)	170V (64Hz)

• When thermistor is abnormal. **[SUZ-KA50/60/71VA(1).TH SUZ-KA60VAR2.TH]**

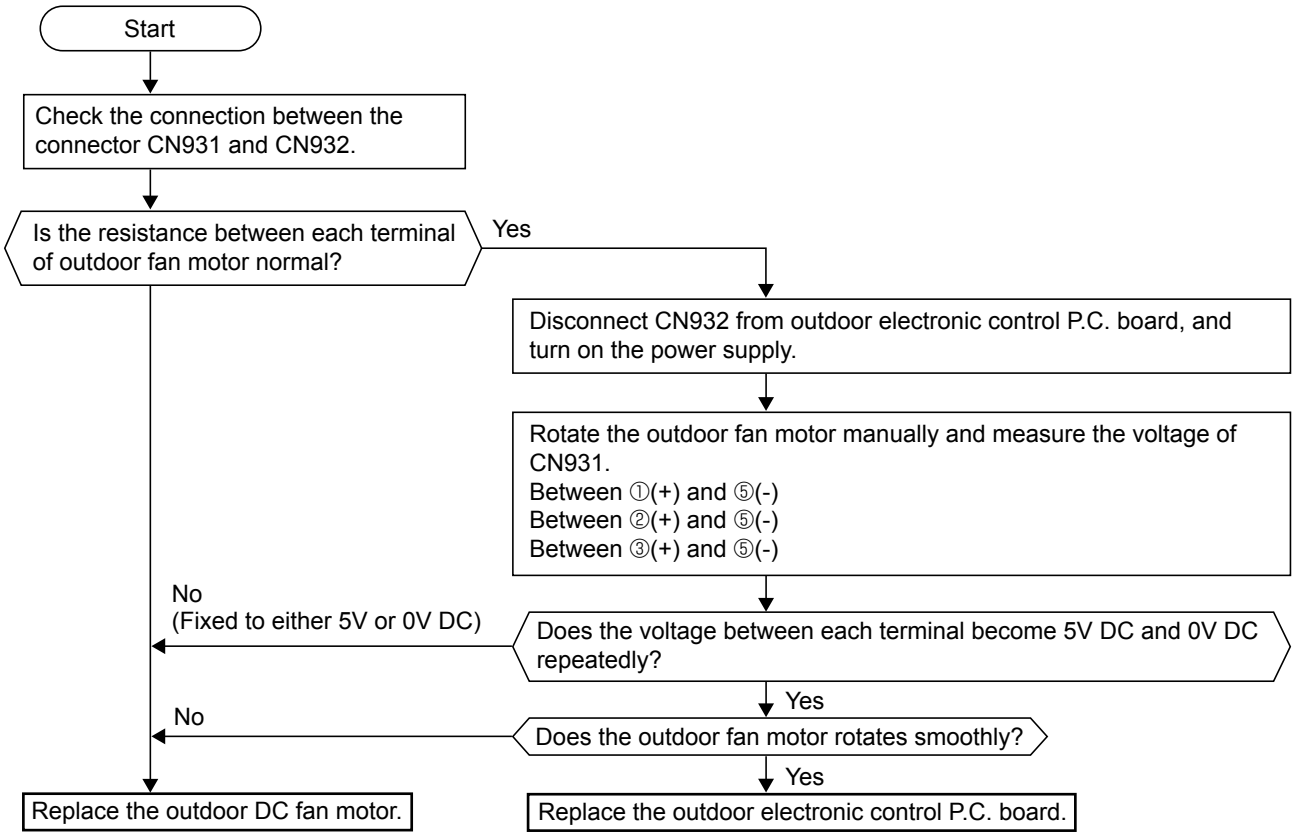
Ⓥ Check of outdoor thermistors


Disconnect the connector in the outdoor electronic control P.C. board or the outdoor power board (see below table), and measure the resistance of thermistor. Is the thermistor normal?
Yes
Replace the thermistor.
No
Reconnect the connector CN661 on the outdoor electronic control P.C. board and CN3 on the power board, and disconnect the lead wire leading to the compressor.
3 minutes after turning on the power supply, start (EMERGENCY) OPERATION.
Does thermistor operate 10 minutes or more though the thermistor abnormality is not displayed?
No
Replace the outdoor electronic control P.C. board.
Yes
Normal

Thermistor	Symbol	Connector, Pin No.
Defrost thermistor	RT61	Between CN661 pin1 and pin2 on the outdoor electronic control P.C. board
Discharge temperature thermistor	RT62	Between CN661 pin3 and pin4 on the outdoor electronic control P.C. board
Outdoor heat exchanger temperature thermistor	RT68	Between CN661 pin7 and pin8 on the outdoor electronic control P.C. board
Fin temperature thermistor	RT64	Between CN3 pin1 and pin2 on the outdoor power board
Ambient temperature thermistor	RT65	Between CN663 pin1 and pin2 on the outdoor electronic control P.C. board

• Fan motor does not operate or stops operating shortly after starting the operation.

Ⓦ Check of outdoor fan motor

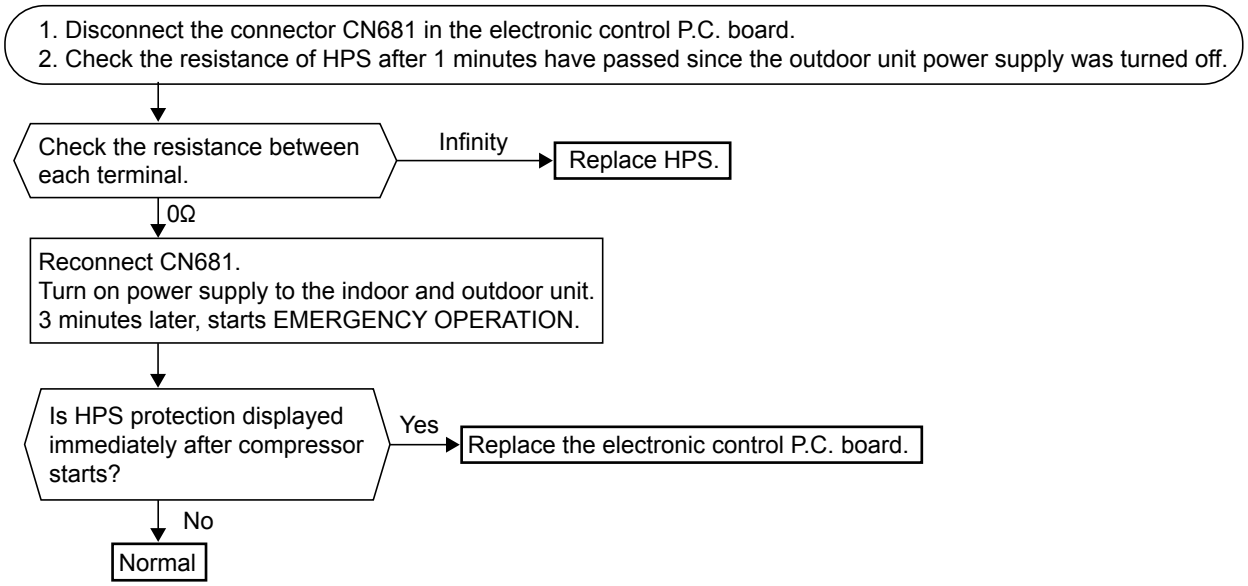

Start
Check the connection between the connector CN931 and CN932.
Is the resistance between each terminal of outdoor fan motor normal?
Yes
Disconnect CN932 from outdoor electronic control P.C. board, and turn on the power supply.
Rotate the outdoor fan motor manually and measure the voltage of CN931.
Between ①(+) and ⑤(-)
Between ②(+) and ⑤(-)
Between ③(+) and ⑤(-)
No
(Fixed to either 5V or 0V DC)
Does the voltage between each terminal become 5V DC and 0V DC repeatedly?
Yes
No
Does the outdoor fan motor rotates smoothly?
Yes
Replace the outdoor DC fan motor.
Replace the outdoor electronic control P.C. board.

[SUZ-KA50/60/71VA(1).TH SUZ-KA60VAR2.TH]

• When the operation frequency does not go up from lowest frequency.

Ⓧ Check of HPS

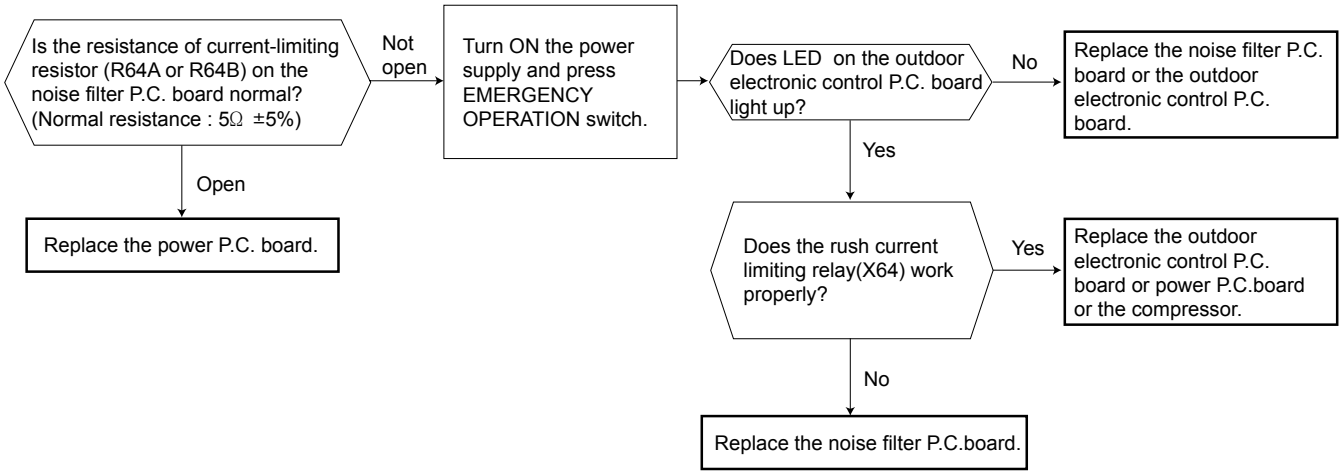
SUZ-KA60VAR2.TH
SUZ-KA71VA(1).TH


1. Disconnect the connector CN681 in the electronic control P.C. board.
2. Check the resistance of HPS after 1 minutes have passed since the outdoor unit power supply was turned off.
Check the resistance between each terminal.
Infinity
Replace HPS.
0Ω
Reconnect CN681.
Turn on power supply to the indoor and outdoor unit.
3 minutes later, starts EMERGENCY OPERATION.
Is HPS protection displayed immediately after compressor starts?
Yes
Replace the electronic control P.C. board.
No
Normal

• Outdoor unit does not operate at all, or stops immediately due to overcurrent.

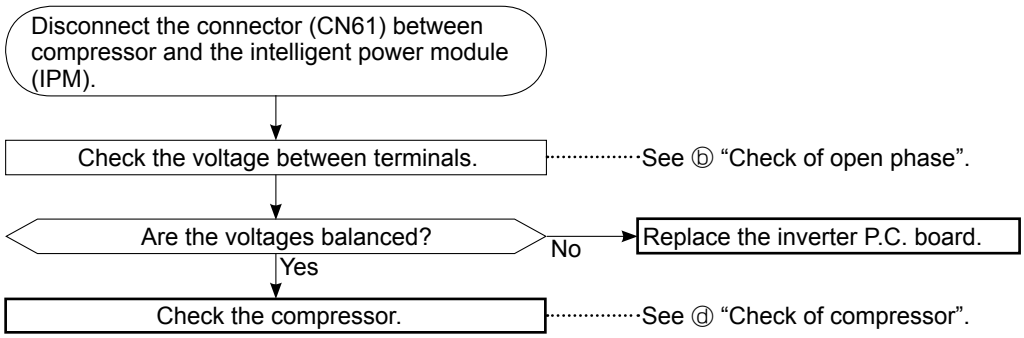
Ⓨ Check of current-limiting resistor

When the current-limiting resistor is open, the rush current limiting relay (X64) may not work properly.


Is the resistance of current-limiting resistor (R64A or R64B) on the noise filter P.C. board normal? (Normal resistance : 5Ω ±5%)
Not open
Turn ON the power supply and press EMERGENCY OPERATION switch.
Does LED on the outdoor electronic control P.C. board light up?
No
Replace the noise filter P.C. board or the outdoor electronic control P.C. board.
Yes
Open
Replace the power P.C. board.
Does the rush current limiting relay(X64) work properly?
Yes
Replace the outdoor electronic control P.C. board or power P.C.board or the compressor.
No
Replace the noise filter P.C.board.

[SUZ-KA25/35VA(H)R1.TH SUZ-KA50VAR2.TH]

ⓐ How to check inverter/compressor

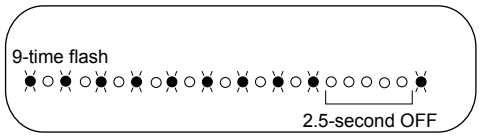

Disconnect the connector (CN61) between compressor and the intelligent power module (IPM).
Check the voltage between terminals.
See ⓑ "Check of open phase".
Are the voltages balanced?
No
Replace the inverter P.C. board.
Yes
Check the compressor.
See ⓓ "Check of compressor".

ⓑ Check of open phase

● With the connector between the compressor and the intelligent power module disconnected, activate the inverter and check if the inverter is normal by measuring the balance of voltage between the terminals.

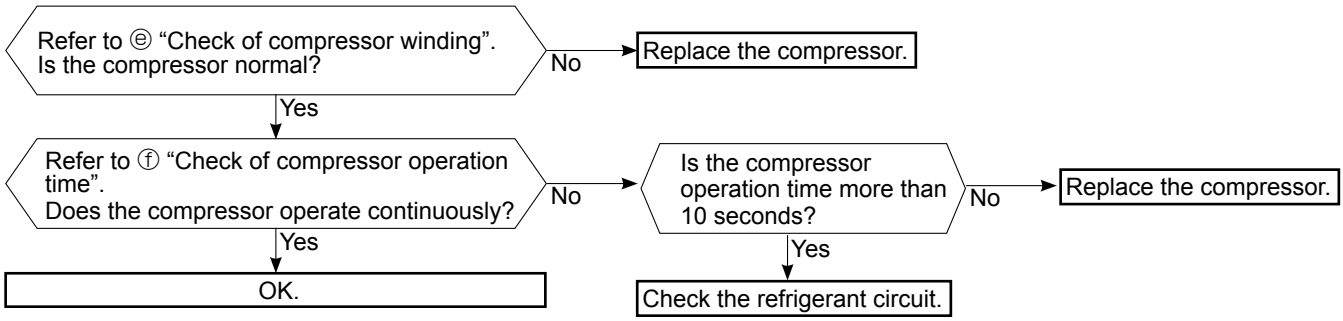
The output voltage values have the tolerance of ± 20%.

<< Operation method>>
Start cooling or heating operation by pressing EMERGENCY OPERATION switch on the indoor unit. (TEST RUN OPERATION : Refer to page 31 for SLZ/SUZ and page 37 for SEZ/SUZ.)
<<Measurement point>>
At 3 points
BLK (U) - WHT (V)
BLK (U) - RED (W)
WHT (V) - RED (W)



NOTE: 1. Output voltage varies according to power supply voltage.
2. Measure the voltage by analog type tester.
3. During this check, LED of the inverter P.C. board flashes 9 times. (Refer to 12-6-3. (KA25/35VA) or 12-6-7.)

ⓓ Check of compressor



[SUZ-KA25/35VA(H)R1.TH SUZ-KA50VAR2.TH]

ⓔ Check of compressor winding

● Disconnect the connector (CN61) between the compressor and intelligent power module, and measure the resistance between the compressor terminals.

<<Measurement point>>

at 3 points

BLK-WHT

BLK-RED ※ Measure the resistance between the lead wires at 3 points.

WHT-RED

<<Judgement>>

Refer to 12-4.

0 [Ω] ·····Abnormal [short]

Infinite [Ω] ·····Abnormal [open]

NOTE: Be sure to zero the ohmmeter before measurement.

ⓕ Check of compressor operation time

●Connect the compressor and activate the inverter. Then measure the time until the inverter stops due to over current.

<<Operation method>>

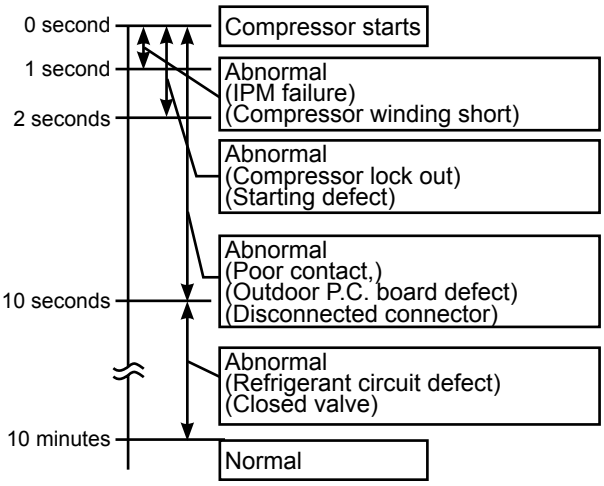
Start heating or cooling operation by pressing EMERGENCY OPERATION switch on the indoor unit.

(TEST RUN OPERATION : Refer to page 31 for SLZ/SUZ and page 37 SEZ/SUZ.)

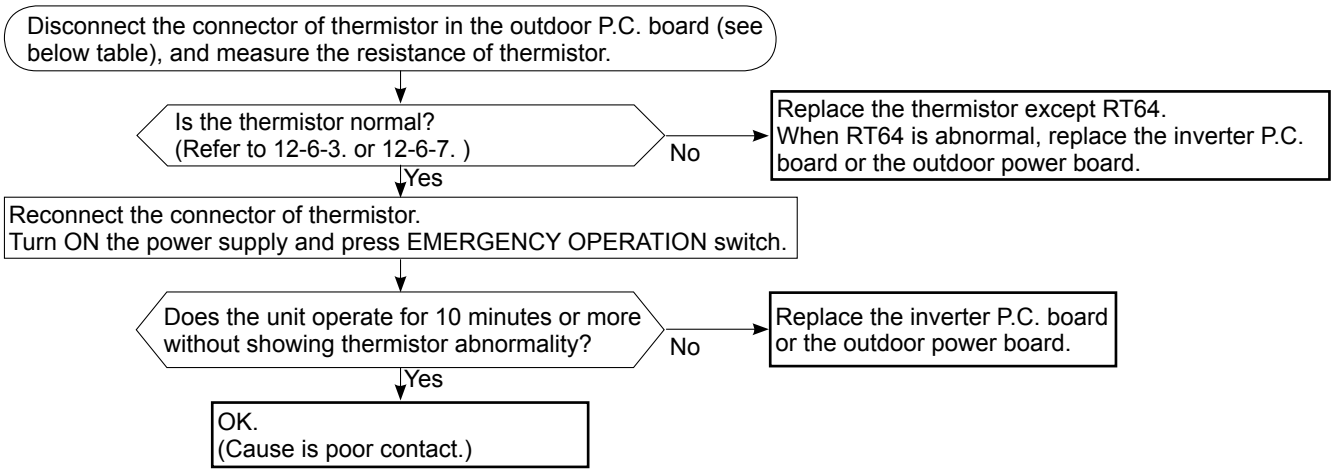
<<Measurement>>

Measure the time from the start of compressor to the stop of compressor due to overcurrent.

<<Judgement>>



ⓖ Check of outdoor thermistors

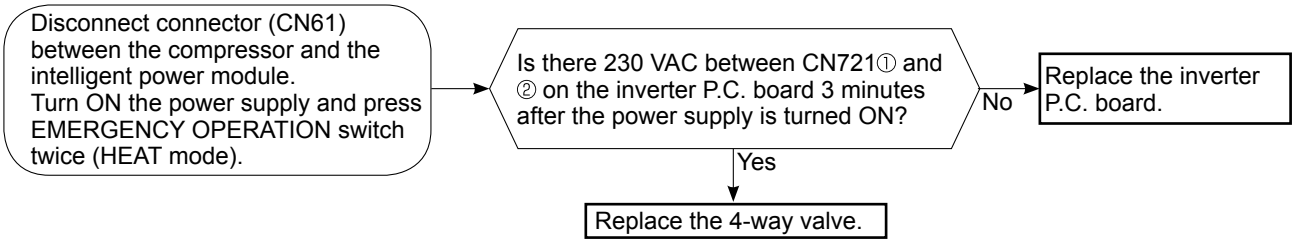

Disconnect the connector of thermistor in the outdoor P.C. board (see below table), and measure the resistance of thermistor.
Is the thermistor normal? (Refer to 12-6-3. or 12-6-7.)
No
Replace the thermistor except RT64. When RT64 is abnormal, replace the inverter P.C. board or the outdoor power board.
Yes
Reconnect the connector of thermistor. Turn ON the power supply and press EMERGENCY OPERATION switch.
Does the unit operate for 10 minutes or more without showing thermistor abnormality?
No
Replace the inverter P.C. board or the outdoor power board.
Yes
OK. (Cause is poor contact.)

Thermistor	Symbol	Connector, Pin No.	Board
Defrost	RT61	Between CN641 pin1 and pin2	Inverter P.C. board
Discharge temperature	RT62	Between CN641 pin3 and pin4	
Fin temperature	RT64	Between CN642 pin1 and pin2	
Ambient temperature	RT65	Between CN643 pin1 and pin2	
Outdoor heat exchanger temperature	RT68	Between CN644 pin1 and pin3	

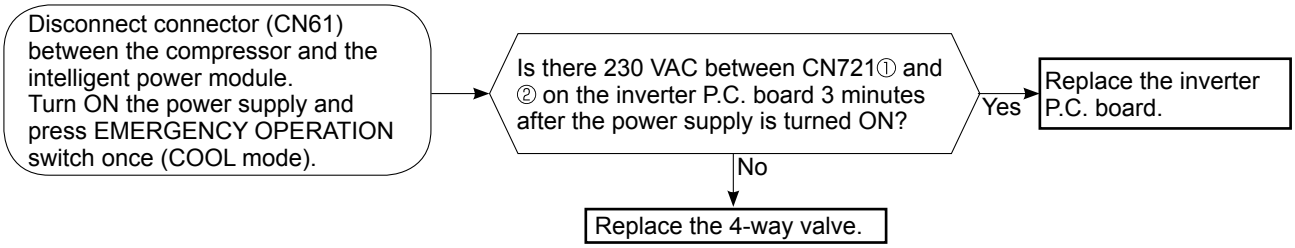
ⓗ Check of R.V. coil

※ First of all, measure the resistance of R.V. coil to check if the coil is defective. Refer to 12-4.
※ In case CN721 is not connected or R.V. coil is open, voltage is generated between the terminal pins of the connector although any signal is not being transmitted to R.V. coil.
Check if CN721 is connected.

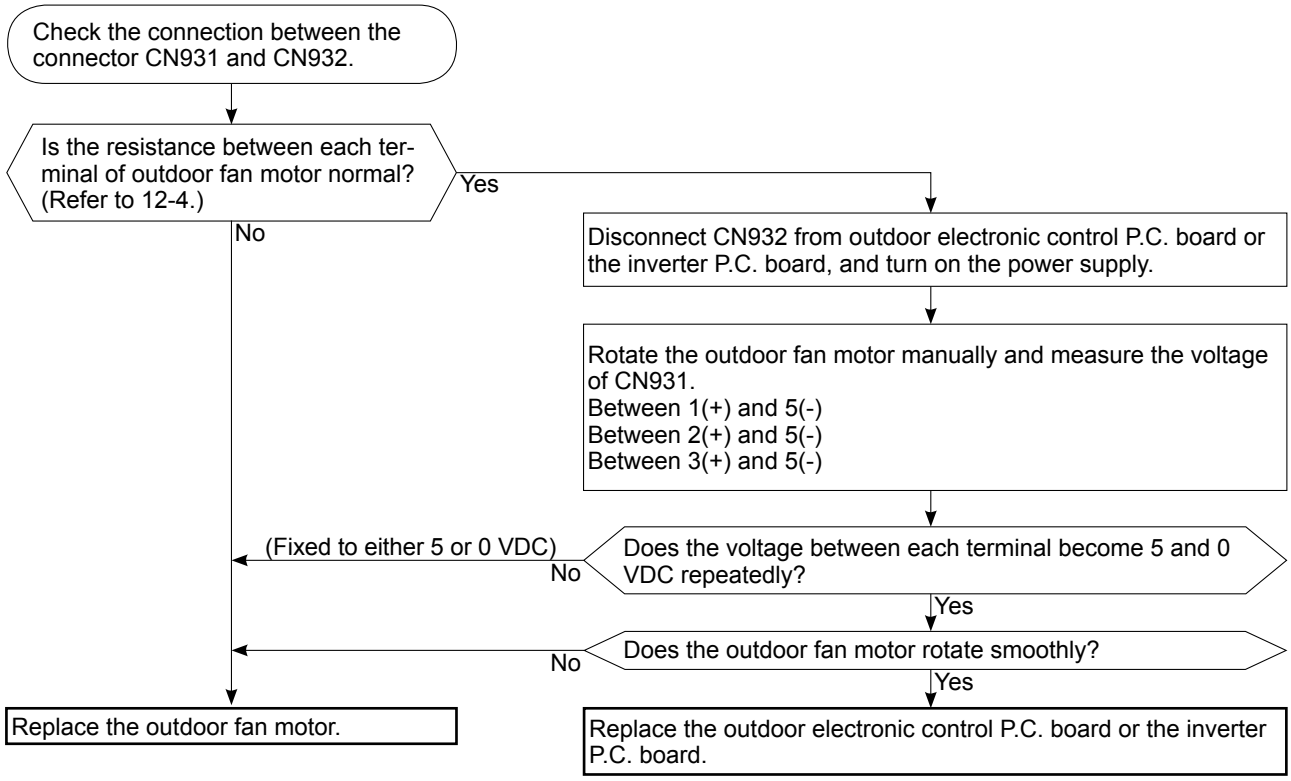
Unit operates COOL mode even if it is set to HEAT mode.


Disconnect connector (CN61) between the compressor and the intelligent power module.
Turn ON the power supply and press EMERGENCY OPERATION switch twice (HEAT mode).
Is there 230 VAC between CN721① and ② on the inverter P.C. board 3 minutes after the power supply is turned ON?
No
Replace the inverter P.C. board.
Yes
Replace the 4-way valve.

Unit operates HEAT mode even if it is set to COOL mode.

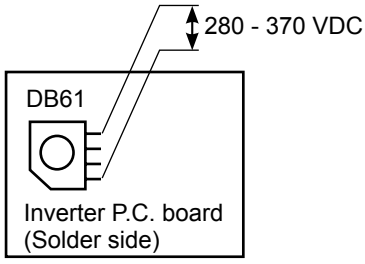

Disconnect connector (CN61) between the compressor and the intelligent power module.
Turn ON the power supply and press EMERGENCY OPERATION switch once (COOL mode).
Is there 230 VAC between CN721① and ② on the inverter P.C. board 3 minutes after the power supply is turned ON?
Yes
Replace the inverter P.C. board.
No
Replace the 4-way valve.

ⓘ Check of outdoor fan motor


Check the connection between the connector CN931 and CN932.
Is the resistance between each terminal of outdoor fan motor normal? (Refer to 12-4.)
Yes
No
Disconnect CN932 from outdoor electronic control P.C. board or the inverter P.C. board, and turn on the power supply.
Rotate the outdoor fan motor manually and measure the voltage of CN931.
Between 1(+) and 5(-)
Between 2(+) and 5(-)
Between 3(+) and 5(-)
(Fixed to either 5 or 0 VDC)
No
Does the voltage between each terminal become 5 and 0 VDC repeatedly?
Yes
No
Does the outdoor fan motor rotate smoothly?
Yes
Replace the outdoor fan motor.
Replace the outdoor electronic control P.C. board or the inverter P.C. board.

[SUZ-KA25/35VA(H)R1.TH SUZ-KA50VAR2.TH]

ⓙ Check of power supply



Disconnect the connector (CN61) between compressor and intelligent power module.
Turn ON power supply and press EMERGENCY OPERATION switch.

Does the left lamp of OPERATION INDICATOR lamp on the indoor unit light up?
- No → Is there voltage 230 VAC between the indoor terminal block S1 and S2?
  - Yes → Rectify indoor/outdoor connecting wire.
  - No → Replace the indoor electronic control P.C. board.
- Yes → Is there voltage 280 - 370 VDC between DB61 (+) and DB61 (–) on the inverter P.C. board? (Refer to 12-6-3. or 12-6-7.)
  - Yes → Dose LED on the inverter P.C. board light up or flash? (Refer to 12-6-3. or 12-6-7.)
    - No → Replace the inverter P.C. board.
    - Yes → If light up, OK. If flash, refer to 12-3.
  - No → Check the electric parts in main circuit.

ⓚ Check of LEV

(For wireless remote controller use model)

Turn ON the power supply.
<Preparation of the remote controller>
① While pressing both OPERATION SELECT button and TOO COOL button on the remote controller at the same time, press RESET button.
② First, release RESET button.
And release the other two buttons after all LCD except the set temperature in operation display section of the remote controller is displayed after 3 seconds.

Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit. ※1

※1. Regardless of normal or abnormal condition, a short beep is emitted once the signal is received.

Expansion valve operates in full-opening direction.

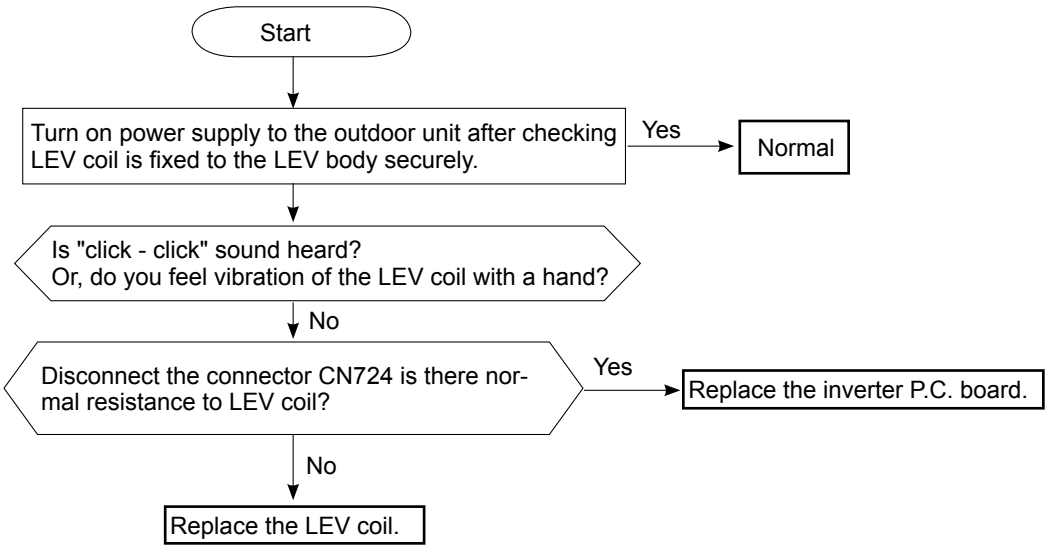
Do you hear the expansion valve "click, click·····"?
Do you feel the expansion valve vibrate on touching it ?
- Yes → OK
- No → Is LEV coil properly fixed to the expansion valve?
  - No → Properly fix the LEV coil to the expansion valve.
  - Yes → Does the resistance of LEV coil have the characteristics? (Refer to 12-4.)
    - Yes → Measure each voltage between connector pins of CN724 on the inverter P.C. board.
      1. Pin③(-) — Pin①(+)
      2. Pin④(-) — Pin①(+)
      3. Pin⑤(-) — Pin①(+)
      4. Pin⑥(-) — Pin①(+)

      Is there about 3 ~ 5 VAC between each?
      NOTE: Measure the voltage by an analog tester.
      - Yes → Replace the expansion valve.
    - No → Replace the LEV coil.

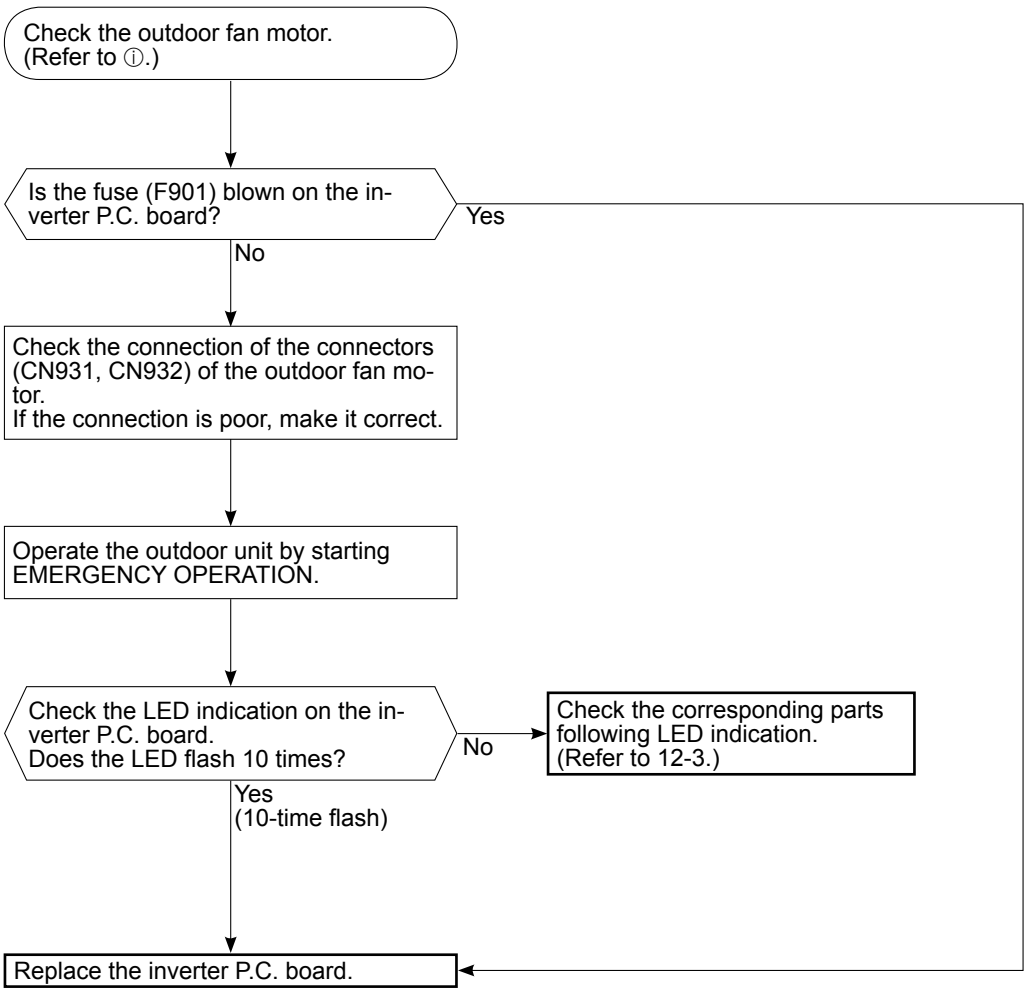
NOTE : After check of LEV, do the undermentioned operations.
1. Turn OFF the power supply and turn ON it again.
2. Press RESET button on the remote controller.

ⓜ Check of LEV (Expasion valve)

(For wired remote controller use model)

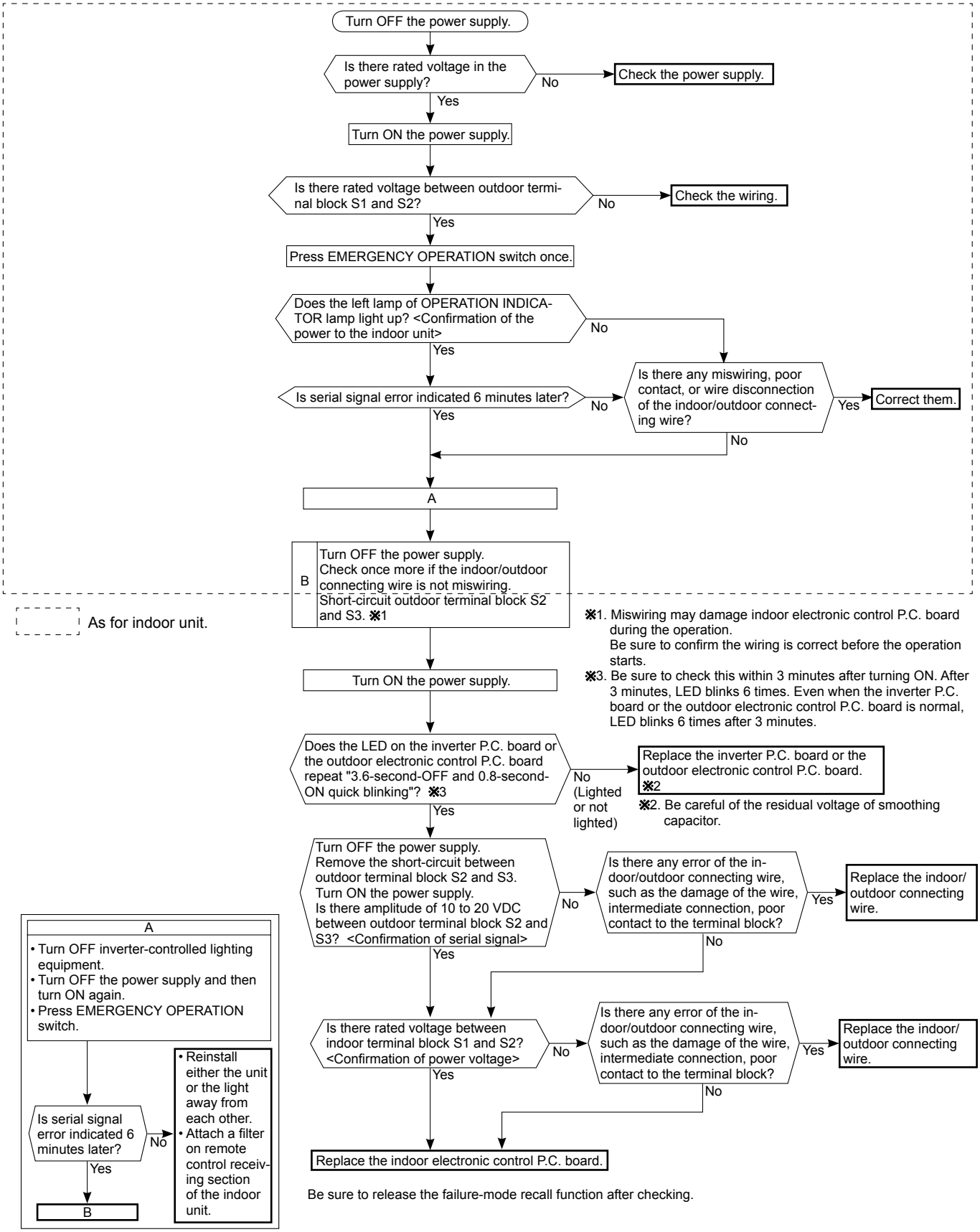

Start
Turn on power supply to the outdoor unit after checking LEV coil is fixed to the LEV body securely.
Yes
Normal
Is "click - click" sound heard?
Or, do you feel vibration of the LEV coil with a hand?
No
Disconnect the connector CN724 is there normal resistance to LEV coil?
Yes
Replace the inverter P.C. board.
No
Replace the LEV coil.

ⓝ Check of inverter P.C. board


Check the outdoor fan motor.
(Refer to ⓘ.)
Is the fuse (F901) blown on the inverter P.C. board?
Yes
No
Check the connection of the connectors (CN931, CN932) of the outdoor fan motor.
If the connection is poor, make it correct.
Operate the outdoor unit by starting EMERGENCY OPERATION.
Check the LED indication on the inverter P.C. board.
Does the LED flash 10 times?
No
Check the corresponding parts following LED indication.
(Refer to 12-3.)
Yes
(10-time flash)
Replace the inverter P.C. board.

[SUZ-KA25/35VA(H)R1.TH SUZ-KA50VAR2.TH]

ⓟ How to check miswiring and serial signal error (For wireless remote controller use model)

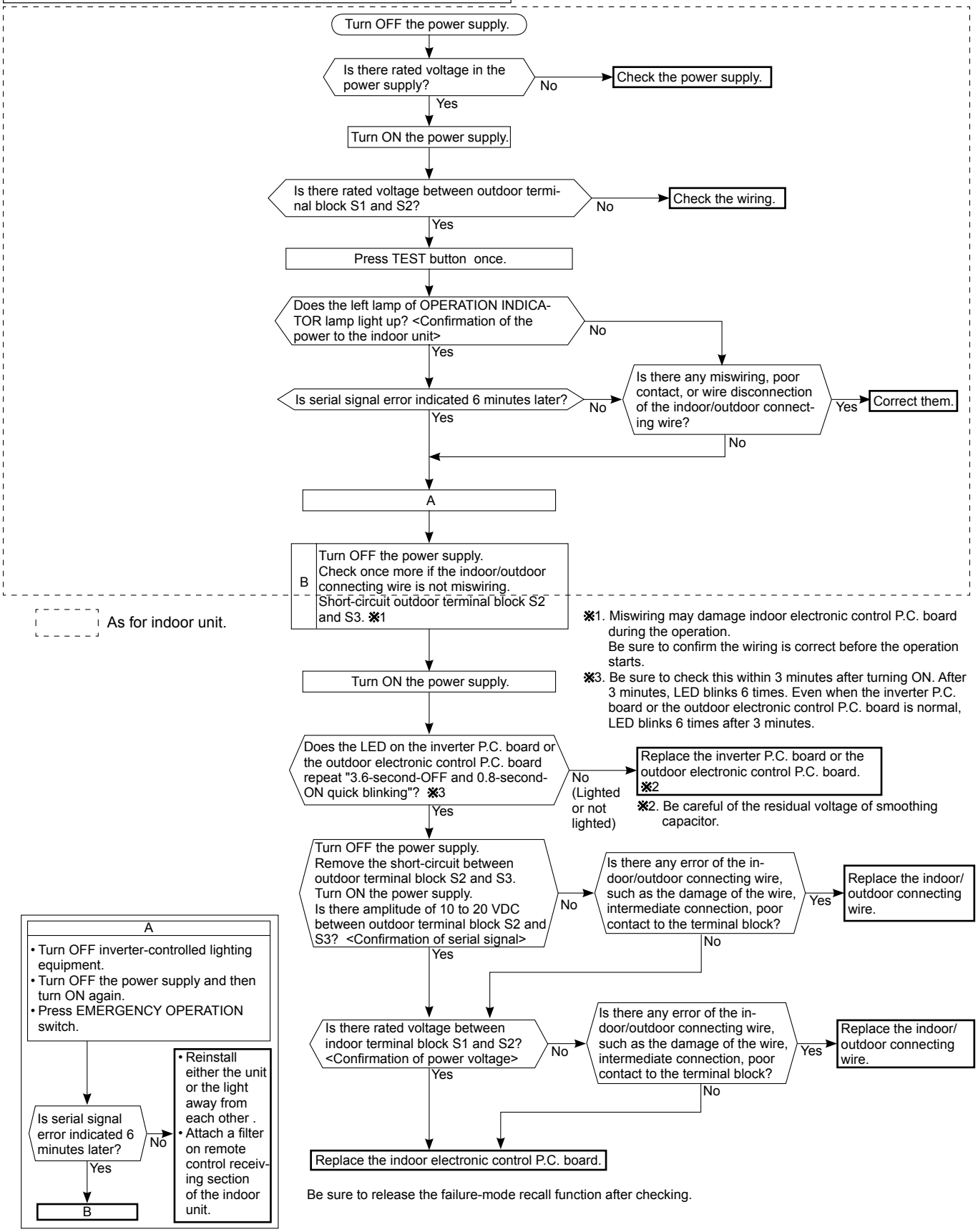

Turn OFF the power supply.
Is there rated voltage in the power supply?
No
Check the power supply.
Yes
Turn ON the power supply.
Is there rated voltage between outdoor terminal block S1 and S2?
No
Check the wiring.
Yes
Press EMERGENCY OPERATION switch once.
Does the left lamp of OPERATION INDICATOR lamp light up? <Confirmation of the power to the indoor unit>
No
Yes
Is serial signal error indicated 6 minutes later?
No
Is there any miswiring, poor contact, or wire disconnection of the indoor/outdoor connecting wire?
Yes
Correct them.
Yes
No
A
B
Turn OFF the power supply.
Check once more if the indoor/outdoor connecting wire is not miswiring.
Short-circuit outdoor terminal block S2 and S3. ※1
As for indoor unit.
※1. Miswiring may damage indoor electronic control P.C. board during the operation.
Be sure to confirm the wiring is correct before the operation starts.
※3. Be sure to check this within 3 minutes after turning ON. After 3 minutes, LED blinks 6 times. Even when the inverter P.C. board or the outdoor electronic control P.C. board is normal, LED blinks 6 times after 3 minutes.
Turn ON the power supply.
Does the LED on the inverter P.C. board or the outdoor electronic control P.C. board repeat "3.6-second-OFF and 0.8-second-ON quick blinking"? ※3
No (Lighted or not lighted)
Replace the inverter P.C. board or the outdoor electronic control P.C. board. ※2
※2. Be careful of the residual voltage of smoothing capacitor.
Yes
Turn OFF the power supply.
Remove the short-circuit between outdoor terminal block S2 and S3.
Turn ON the power supply.
Is there amplitude of 10 to 20 VDC between outdoor terminal block S2 and S3? <Confirmation of serial signal>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Is there rated voltage between indoor terminal block S1 and S2? <Confirmation of power voltage>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Replace the indoor electronic control P.C. board.
A
• Turn OFF inverter-controlled lighting equipment.
• Turn OFF the power supply and then turn ON again.
• Press EMERGENCY OPERATION switch.
Is serial signal error indicated 6 minutes later?
No
• Reinstall either the unit or the light away from each other.
• Attach a filter on remote control receiving section of the indoor unit.
Yes
B

Be sure to release the failure-mode recall function after checking.

[SUZ-KA25/35VA(H)R1.TH SUZ-KA50VAR2.TH]

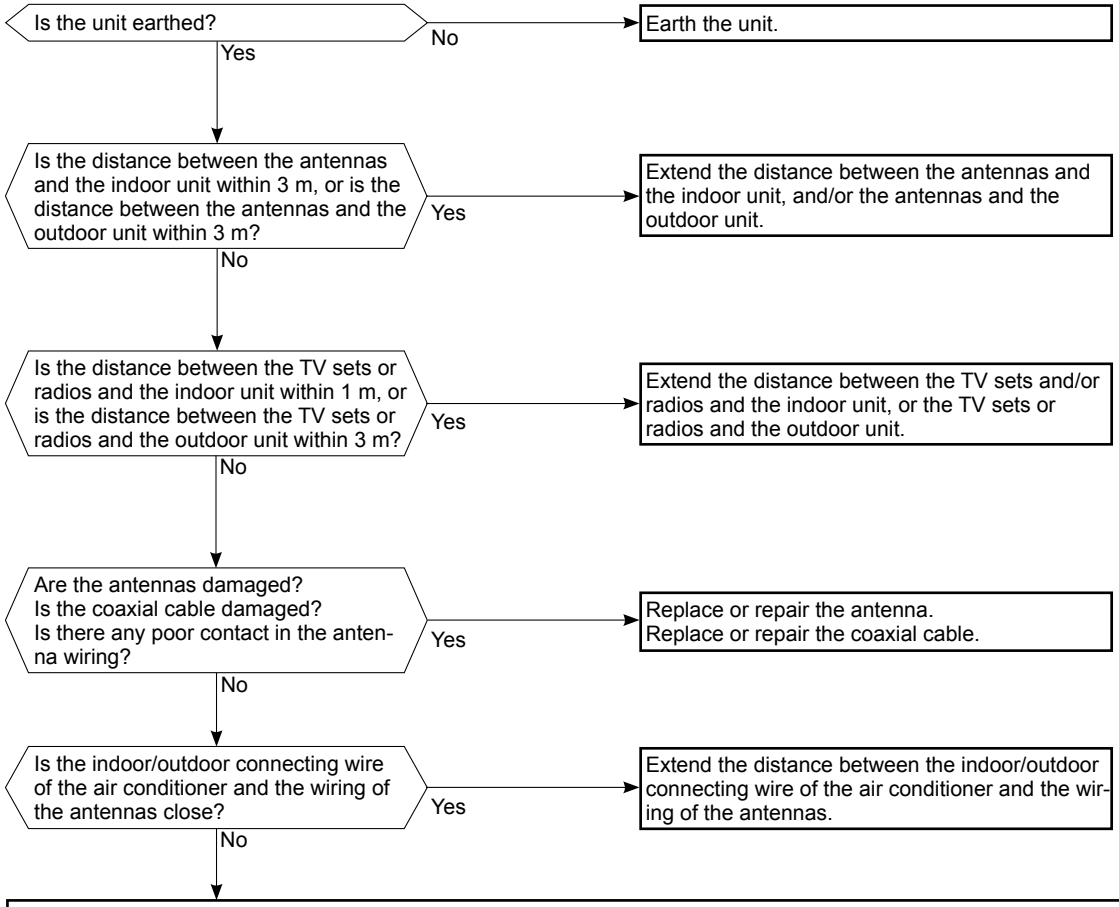
ⓠ How to check miswiring and serial signal error

(For wired remote controller use model)


Turn OFF the power supply.
Is there rated voltage in the power supply?
No
Check the power supply.
Yes
Turn ON the power supply.
Is there rated voltage between outdoor terminal block S1 and S2?
No
Check the wiring.
Yes
Press TEST button once.
Does the left lamp of OPERATION INDICATOR lamp light up? <Confirmation of the power to the indoor unit>
No
Yes
Is serial signal error indicated 6 minutes later?
No
Is there any miswiring, poor contact, or wire disconnection of the indoor/outdoor connecting wire?
Yes
Correct them.
Yes
No
A
B
Turn OFF the power supply.
Check once more if the indoor/outdoor connecting wire is not miswiring.
Short-circuit outdoor terminal block S2 and S3. ※1
As for indoor unit.
※1. Miswiring may damage indoor electronic control P.C. board during the operation.
Be sure to confirm the wiring is correct before the operation starts.
※3. Be sure to check this within 3 minutes after turning ON. After 3 minutes, LED blinks 6 times. Even when the inverter P.C. board or the outdoor electronic control P.C. board is normal, LED blinks 6 times after 3 minutes.
Turn ON the power supply.
Does the LED on the inverter P.C. board or the outdoor electronic control P.C. board repeat "3.6-second-OFF and 0.8-second-ON quick blinking"? ※3
No (Lighted or not lighted)
Replace the inverter P.C. board or the outdoor electronic control P.C. board. ※2
※2. Be careful of the residual voltage of smoothing capacitor.
Yes
Turn OFF the power supply.
Remove the short-circuit between outdoor terminal block S2 and S3.
Turn ON the power supply.
Is there amplitude of 10 to 20 VDC between outdoor terminal block S2 and S3? <Confirmation of serial signal>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Is there rated voltage between indoor terminal block S1 and S2? <Confirmation of power voltage>
No
Is there any error of the indoor/outdoor connecting wire, such as the damage of the wire, intermediate connection, poor contact to the terminal block?
Yes
Replace the indoor/outdoor connecting wire.
No
Yes
Replace the indoor electronic control P.C. board.
A
• Turn OFF inverter-controlled lighting equipment.
• Turn OFF the power supply and then turn ON again.
• Press EMERGENCY OPERATION switch.
Is serial signal error indicated 6 minutes later?
No
• Reinstall either the unit or the light away from each other .
• Attach a filter on remote control receiving section of the indoor unit.
Yes
B

Be sure to release the failure-mode recall function after checking.

ⓡ Electromagnetic noise enters into TV sets or radios


Is the unit earthed?
No
Earth the unit.
Yes
Is the distance between the antennas and the indoor unit within 3 m, or is the distance between the antennas and the outdoor unit within 3 m?
Yes
Extend the distance between the antennas and the indoor unit, and/or the antennas and the outdoor unit.
No
Is the distance between the TV sets or radios and the indoor unit within 1 m, or is the distance between the TV sets or radios and the outdoor unit within 3 m?
Yes
Extend the distance between the TV sets and/or radios and the indoor unit, or the TV sets or radios and the outdoor unit.
No
Are the antennas damaged?
Is the coaxial cable damaged?
Is there any poor contact in the antenna wiring?
Yes
Replace or repair the antenna.
Replace or repair the coaxial cable.
No
Is the indoor/outdoor connecting wire of the air conditioner and the wiring of the antennas close?
Yes
Extend the distance between the indoor/outdoor connecting wire of the air conditioner and the wiring of the antennas.
No

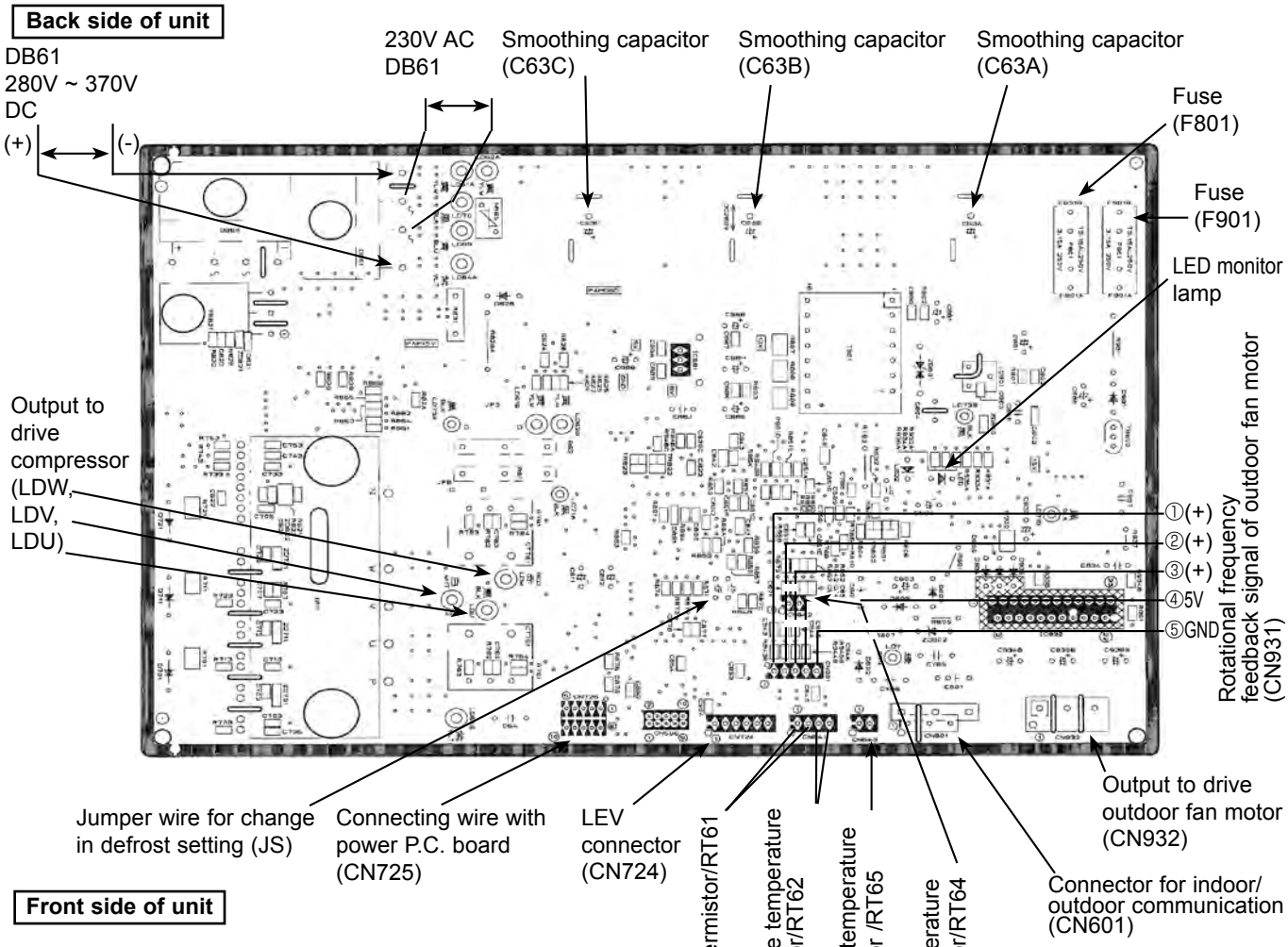
Even if all of the above conditions are fulfilled, the electromagnetic noise may enter, depending on the electric field strength or the installation condition (combination of specific conditions such as antennas or wiring).
Check the following before asking for service.

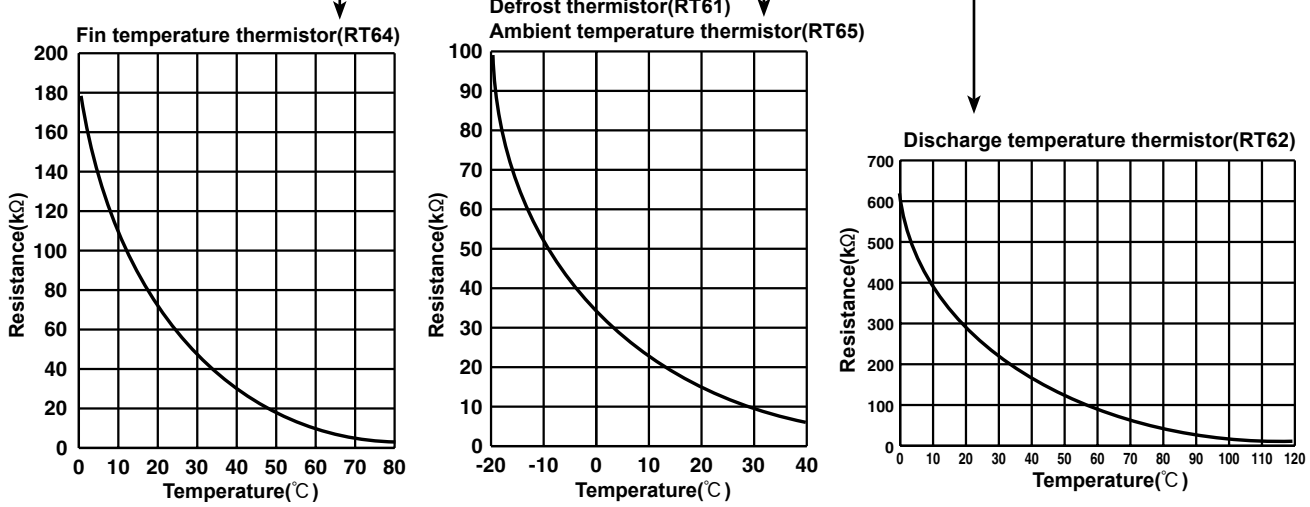
1. Devices affected by the electromagnetic noise
   TV sets, radios (FM/AM broadcast, shortwave)
2. Channel, frequency, broadcast station affected by the electromagnetic noise
3. Channel, frequency, broadcast station unaffected by the electromagnetic noise
4. Layout of ;
   indoor/outdoor unit of the air conditioner, indoor/outdoor wiring, earth wire, antennas, wiring from antennas, receiver
5. Electric field intensity of the broadcast station affected by the electromagnetic noise
6. Presence or absence of amplifier such as booster
7. Operation condition of air conditioner when the electromagnetic noise enters in
   1) Turn OFF the power supply once, and then turn ON the power supply. In this situation, check for the electromagnetic noise.
   2) Within 3 minutes after turning ON the power supply, press OPERATE/STOP (ON/OFF) button on the remote controller for power ON, and check for the electromagnetic noise.
   3) After a short time (3 minutes later after turning ON), the outdoor unit starts running. During operation, check for the electromagnetic noise.
   4) Press OPERATE/STOP (ON/OFF) button on the remote controller for power OFF, when the outdoor unit stops but the indoor/outdoor communication still runs on. In this situation, check for the electromagnetic noise.

12-6. Test point diagram and voltage

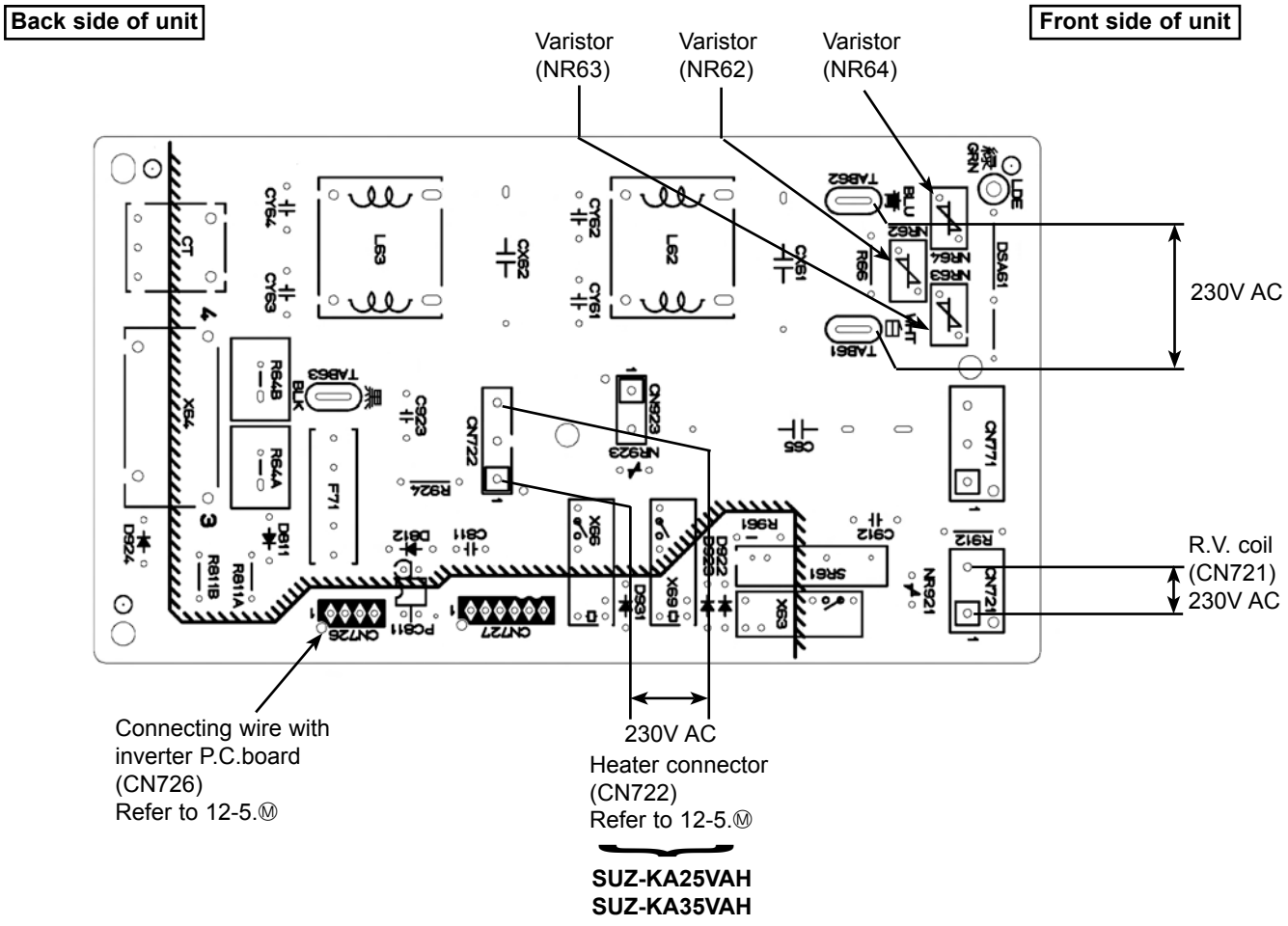
12-6-1. Inverter P.C. board

SUZ-KA25VA.TH SUZ-KA35VA.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH



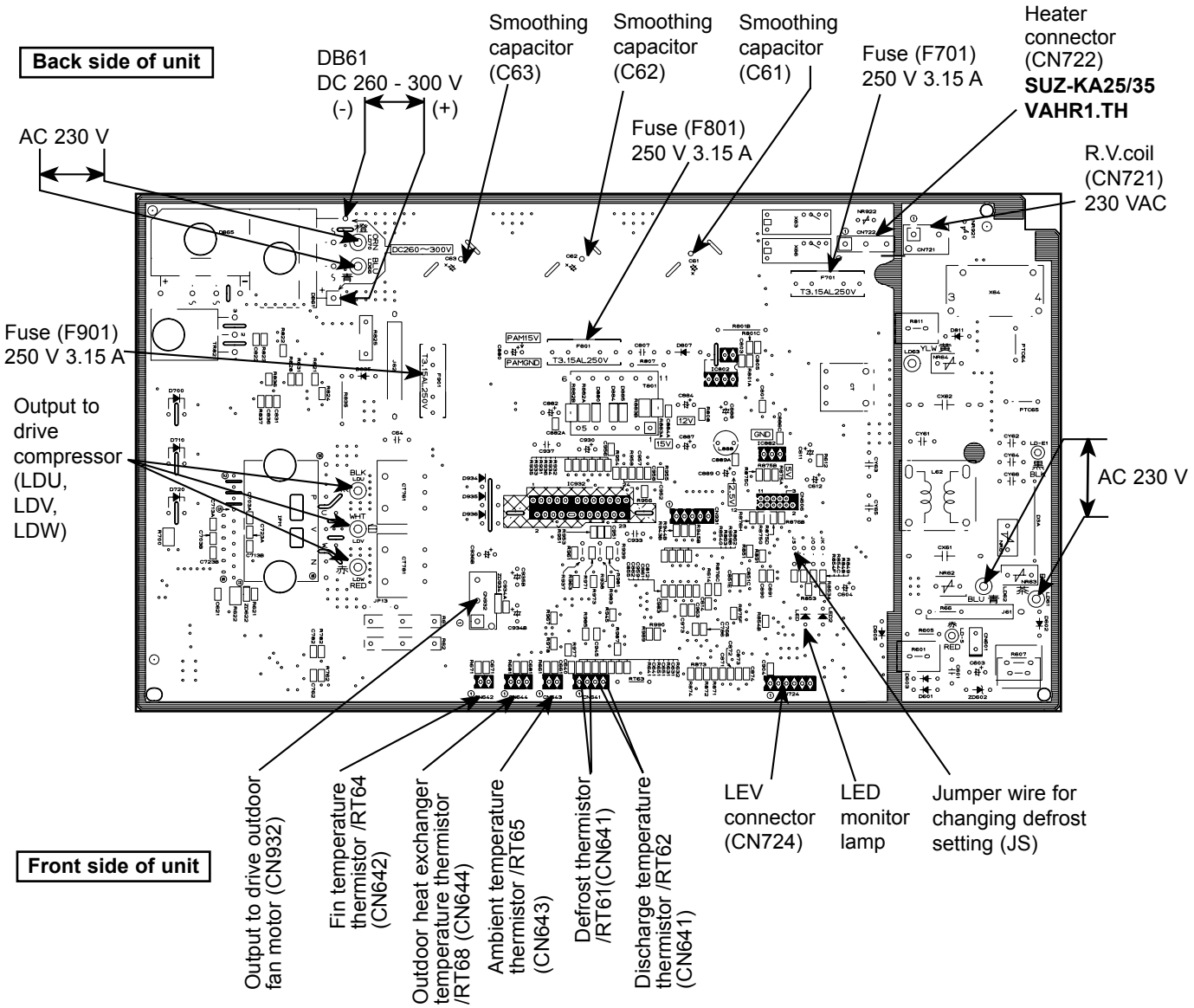


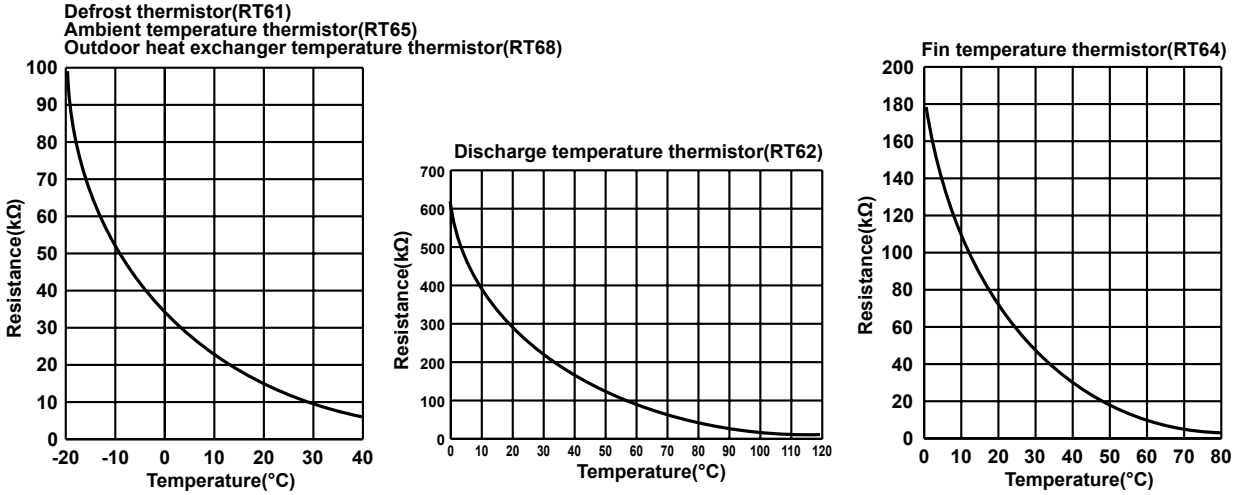
12-6-2. Power P.C. board
SUZ-KA25VA.TH SUZ-KA35VA.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH



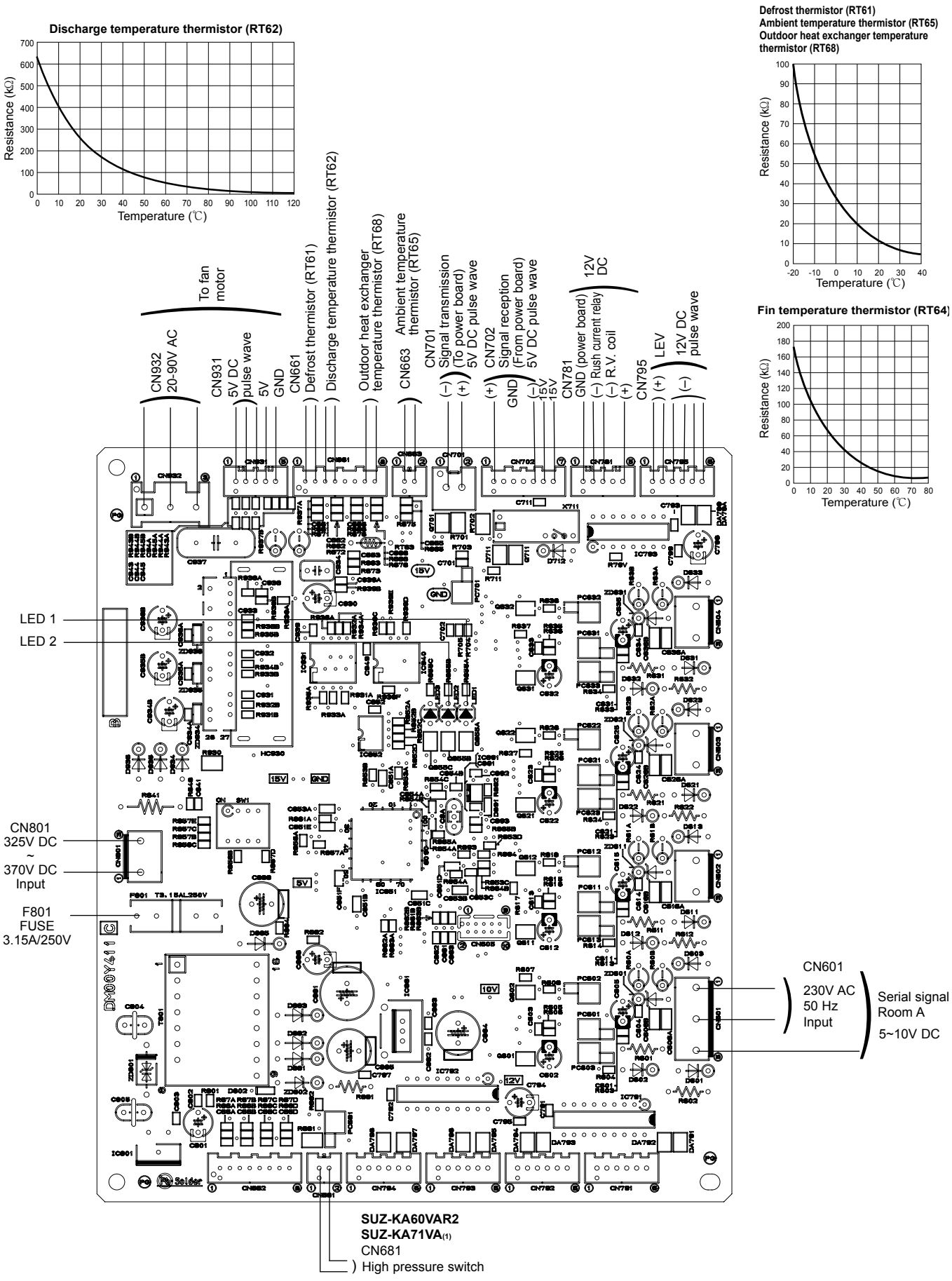
12-6-3. Inverter P.C. board

SUZ-KA25VAR1.TH SUZ-KA35VAR1.TH
SUZ-KA25VAHR1.TH SUZ-KA35VAHR1.TH

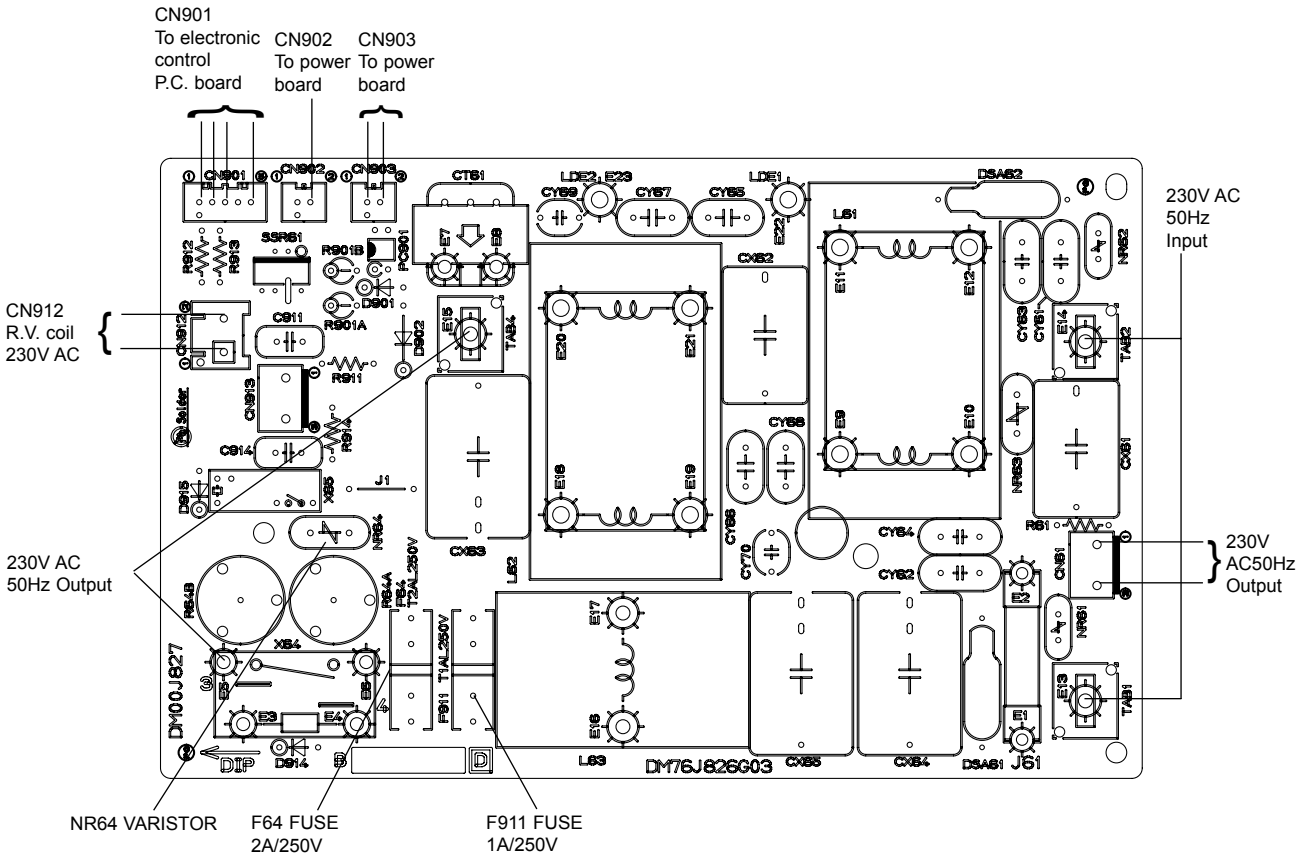

Back side of unit
DB61
DC 260 - 300 V
(-)
(+)
Smoothing capacitor (C63)
Smoothing capacitor (C62)
Smoothing capacitor (C61)
Fuse (F701) 250 V 3.15 A
Heater connector (CN722) SUZ-KA25/35 VAHR1.TH
AC 230 V
Fuse (F801) 250 V 3.15 A
R.V.coil (CN721) 230 VAC
Fuse (F901) 250 V 3.15 A
Output to drive compressor (LDU, LDV, LDW)
AC 230 V
Front side of unit
Output to drive outdoor fan motor (CN932)
Fin temperature thermistor /RT64 (CN642)
Outdoor heat exchanger temperature thermistor /RT68 (CN644)
Ambient temperature thermistor /RT65 (CN643)
Defrost thermistor /RT61(CN641)
Discharge temperature thermistor /RT62 (CN641)
LEV connector (CN724)
LED monitor lamp
Jumper wire for changing defrost setting (JS)



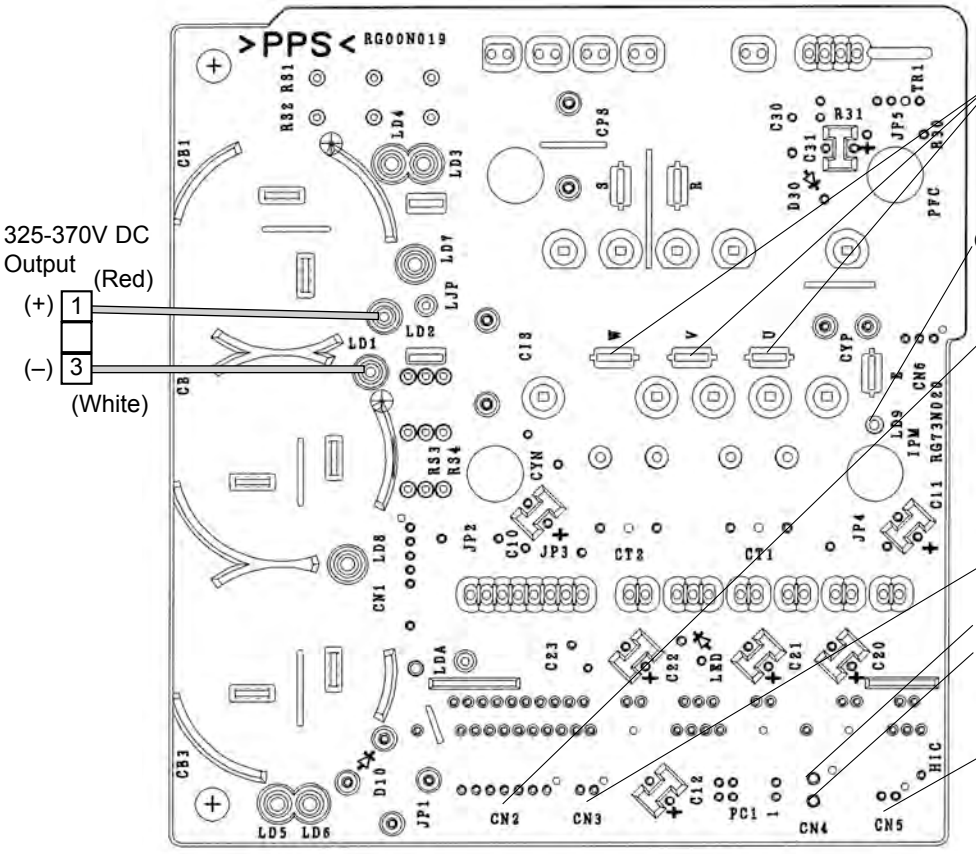
12-6-4. Outdoor electronic control P.C. board
SUZ-KA50VA(1).TH SUZ-KA60VA(1).TH SUZ-KA60VAR2.TH SUZ-KA71VA(1).TH

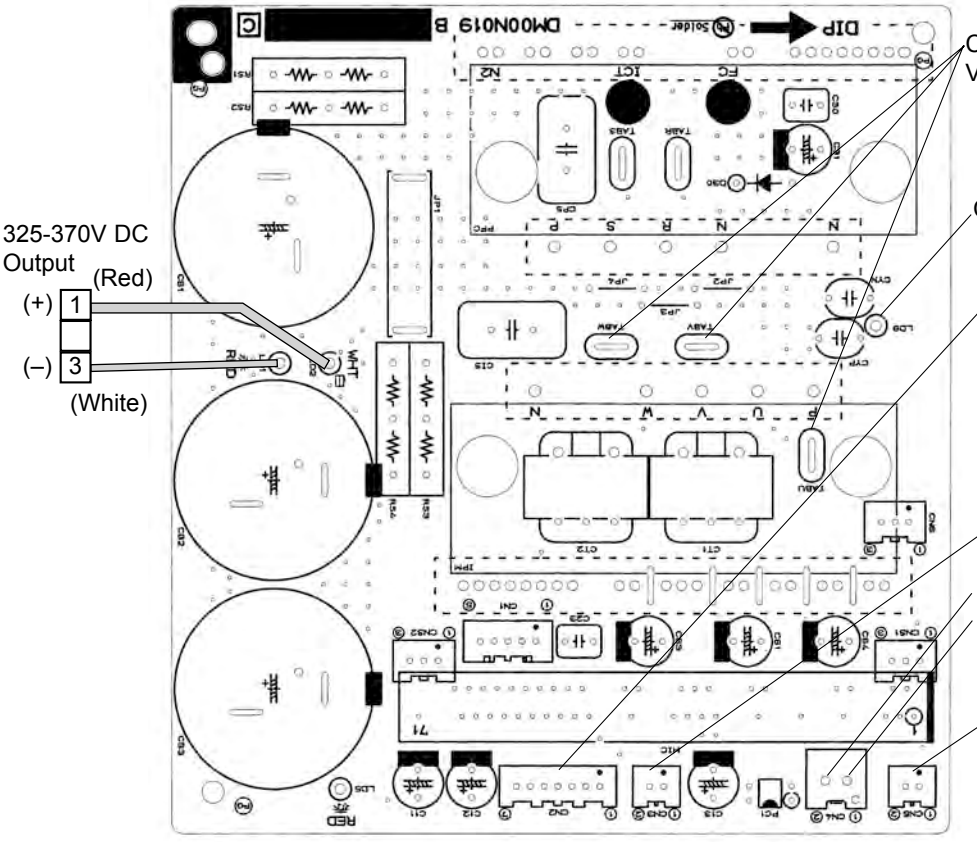


12-6-5. Noise filter P.C. board
SUZ-KA50VA(1).TH SUZ-KA60VA(1).TH SUZ-KA60VAR2.TH SUZ-KA71VA(1).TH

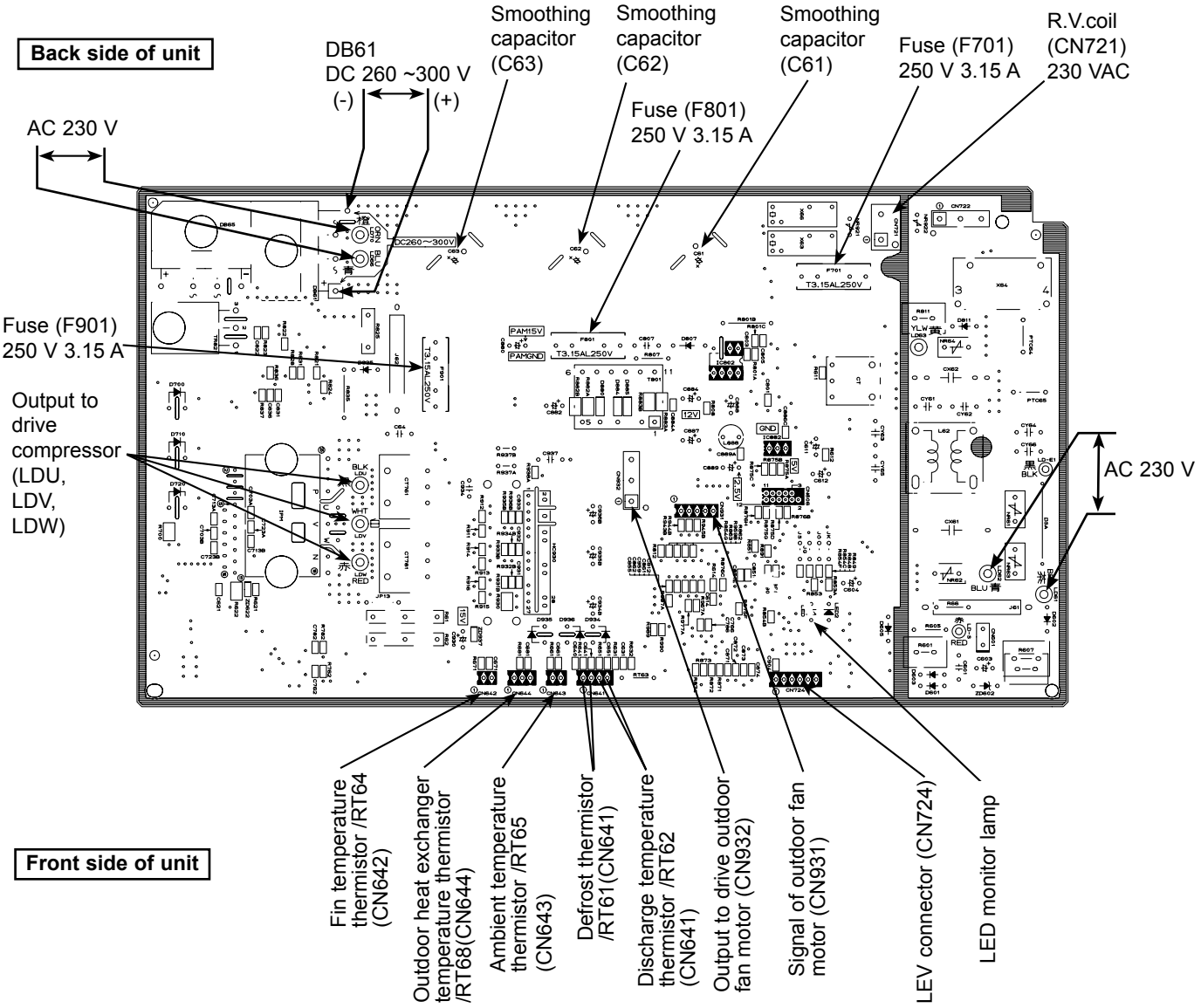


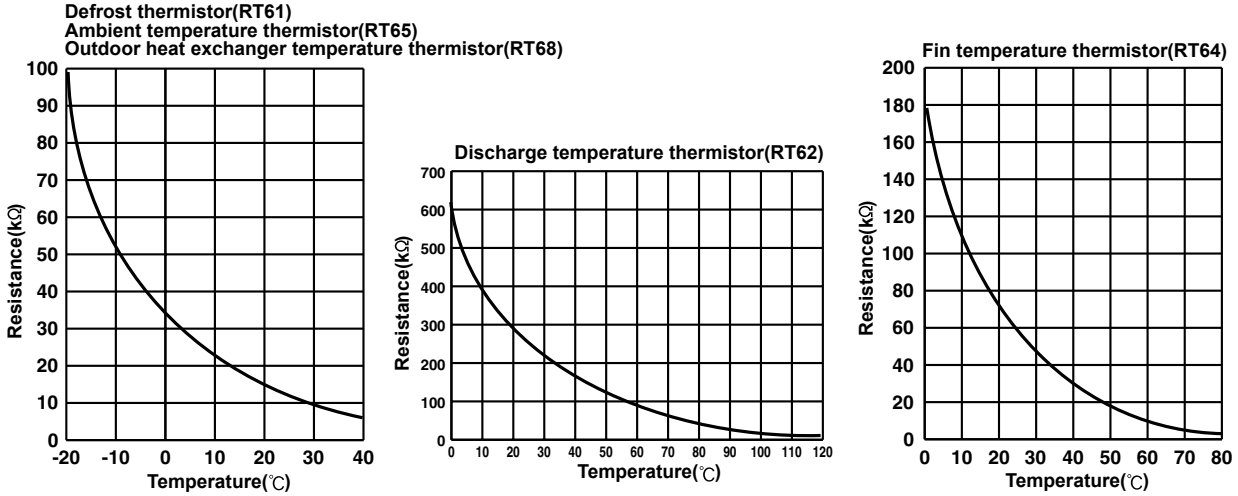
12-6-6. Outdoor power board
SUZ-KA50VA(1).TH SUZ-KA60VA(1).TH SUZ-KA60VAR2 SUZ-KA71VA(1).TH





12-6-7. Inverter P.C. board
SUZ-KA50VAR2.TH


Back side of unit
DB61
DC 260 ~300 V
(-)
(+)
AC 230 V
Smoothing capacitor (C63)
Smoothing capacitor (C62)
Smoothing capacitor (C61)
Fuse (F801) 250 V 3.15 A
Fuse (F701) 250 V 3.15 A
R.V.coil (CN721) 230 VAC
Fuse (F901) 250 V 3.15 A
Output to drive compressor (LDU, LDV, LDW)
AC 230 V
Front side of unit
Fin temperature thermistor /RT64 (CN642)
Outdoor heat exchanger temperature thermistor /RT68(CN644)
Ambient temperature thermistor /RT65 (CN643)
Defrost thermistor /RT61(CN641)
Discharge temperature thermistor /RT62 (CN641)
Output to drive outdoor fan motor (CN932)
Signal of outdoor fan motor (CN931)
LEV connector (CN724)
LED monitor lamp

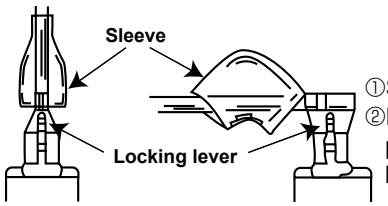


13 DISASSEMBLY INSTRUCTIONS

<"Terminal with locking mechanism" Detaching points>

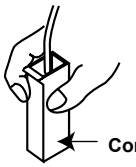
The terminal which has the locking mechanism can be detached as shown below.
There are two types (Refer to (1) and (2)) of the terminal with locking mechanism.
The terminal without locking mechanism can be detached by pulling it out.
Check the shape of the terminal before detaching.

(1) Slide the sleeve and check if there is a locking lever or not.



①Slide the sleeve.
②Pull the terminal while pushing the locking lever.

(2) The terminal with this connector has the locking mechanism.

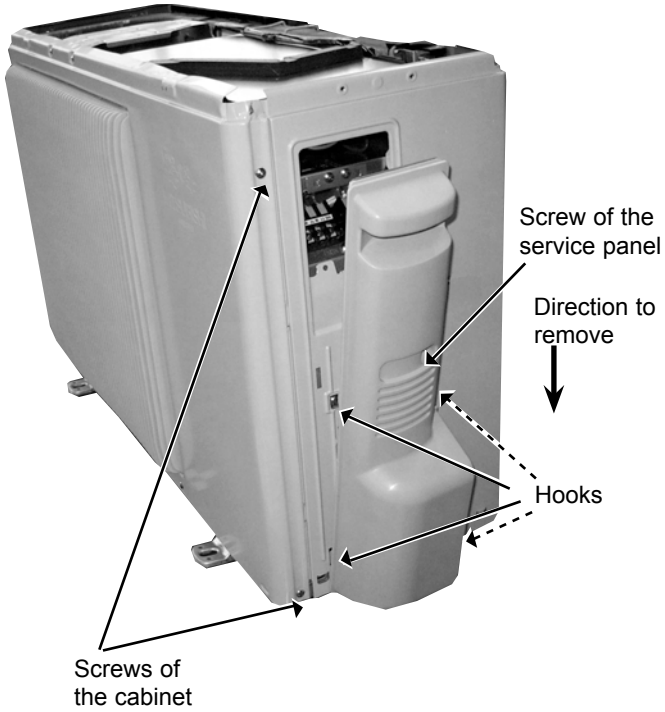


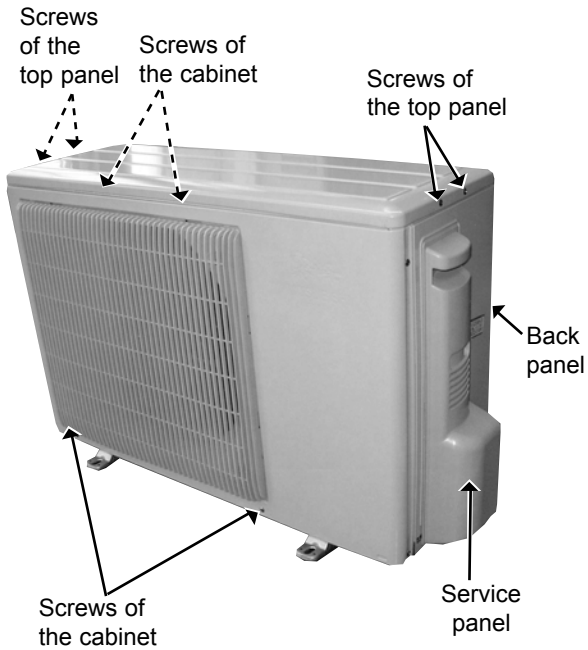
①Hold the sleeve, and pull out the terminal slowly.

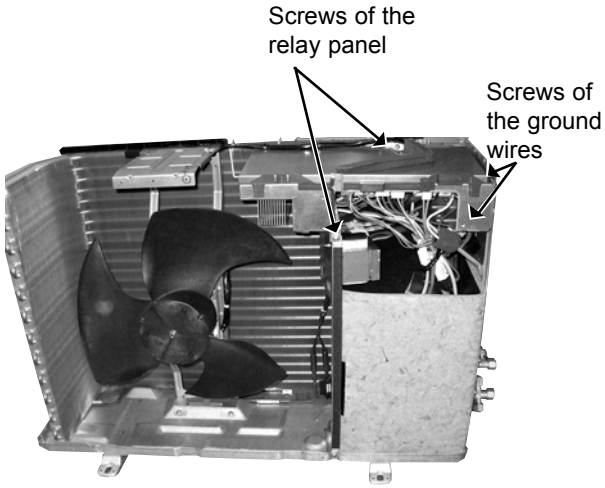
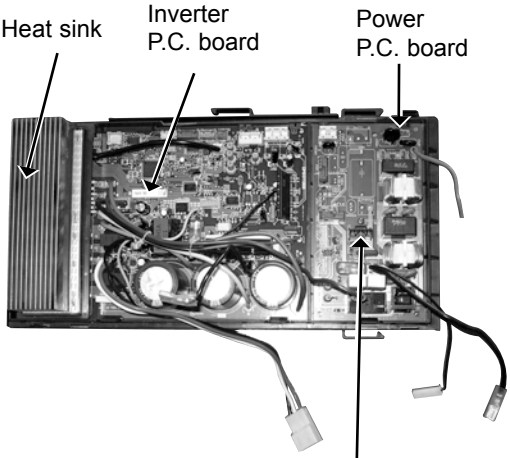
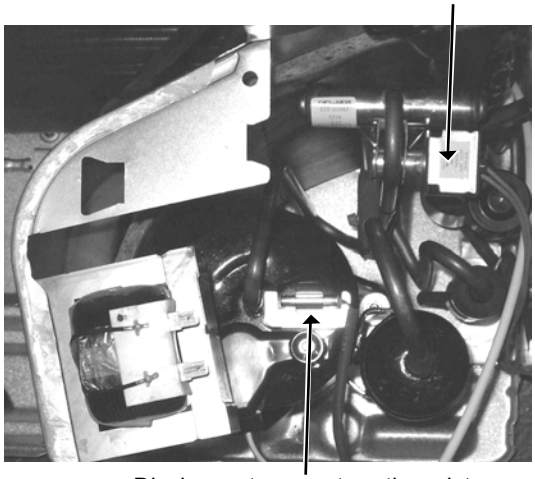
SUZ-KA25VA.TH SUZ-KA35VA.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH
OUTDOOR UNIT

NOTE: Turn OFF power supply before disassembling.

OPERATING PROCEDURE	PHOTOS
1. Removing the cabinet. (1) Remove the screw fixing the service panel. (See Photo 2.) (2) Pull down the service panel and remove it. (See Photo 2.) (3) Disconnect the power supply and indoor/outdoor connecting wire. (4) Remove the screws fixing the top panel. (See Photo 1.) (5) Remove the top panel. (See Photo 1.) (6) Remove the screws fixing the cabinet. (7) Remove the cabinet. (8) Remove the screws fixing the back panel. (9) Remove the back panel.	**Photo 1**
Photo 2	





OPERATING PROCEDURE	PHOTOS
2. Removing the inverter assembly, inverter P.C. board and power P.C. board (1) Remove the top panel, cabinet and service panel. (Refer to 1.) (2) Disconnect the power supply and indoor/outdoor connecting wire and remove the back panel. (Refer to 1.) (3) Disconnect the ground wires(See Photo 3.), the lead wire to the reactor and the following connectors; <Power P.C. board> CN721 (4-way valve) CN722 (Defrost heater) SUZ-KA25/KA35VAH <Inverter P.C. board> CN931,CN932 (Fan motor) CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN724 (LEV) (4) Remove the compressor connector (CN61). (5) Remove the screws fixing the relay panel. (See Photo 3.) (6) Remove the inverter assembly. (See Photo 3.) (7) Disconnect all connectors and lead wires on the inverter P.C. board. (See Photo 4.) (8) Remove the inverter P.C. board from the inverter assembly. (9) Remove the screw fixing the power P.C. board. (See Photo 4.) (10) Disconnect all connectors and lead wires on the power P.C. board. (11) Remove the power P.C. board from the inverter assembly.	**Photo 3** 
3. Removing R.V. coil (1) Remove the top panel, cabinet and service panel. (Refer to 1.) (2) Disconnect the power supply and indoor/outdoor connecting wire and remove the back panel. (Refer to 1.) (3) Remove the inverter assembly. (Refer to 2.) (4) Remove the R.V. coil. (See Photo 5.)	**Photo 4** 
4. Removing the discharge temperature thermistor and defrost thermistor (1) Remove the top panel, cabinet and service panel. (Refer to 1.) (2) Disconnect the power supply and indoor/outdoor connecting wire and remove the back panel. (Refer to 1.) (3) Remove the inverter assembly. (Refer to 2.) (4) Pull out the discharge temperature thermistor from its holder. (See Photo 5.) (5) Pull out the defrost thermistor from its holder. (See Photo 6.)	**Photo 5** 

OPERATING PROCEDURE

5. Removing outdoor fan motor

(1) Remove the top panel, cabinet and service panel. (Refer to 1.)
(2) Disconnect the power supply and indoor/outdoor connecting wire and remove the back panel. (Refer to 1.)
(3) Disconnect the connectors for outdoor fan motor.
(4) Remove the propeller nut.
(5) Remove the propeller.
(6) Remove the screws fixing the fan motor. (See Photo 7.)
(7) Remove the fan motor.

6. Removing the compressor and 4-way valve

(1) Remove the top panel, cabinet and service panel. (Refer to 1.)
(2) Disconnect the power supply and indoor/outdoor connecting wire and remove the back panel. (Refer to 1.)
(3) Remove the inverter assembly. (Refer to 2.)
(4) Recover gas from the refrigerant circuit.
NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm^2 (0 MPa).

(5) Detach the welded part of the suction and the discharge pipe connected with compressor.
(6) Remove the nuts of compressor legs.
(7) Remove the compressor.
(8) Detach the welded part of pipes connected with 4-way valve. (See Photo 8.)

PHOTOS

Photo 6

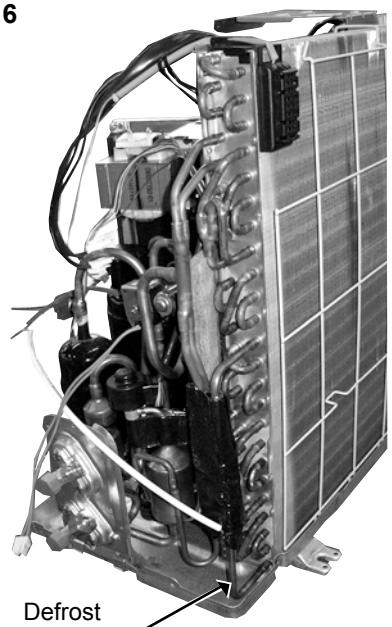


Photo 7

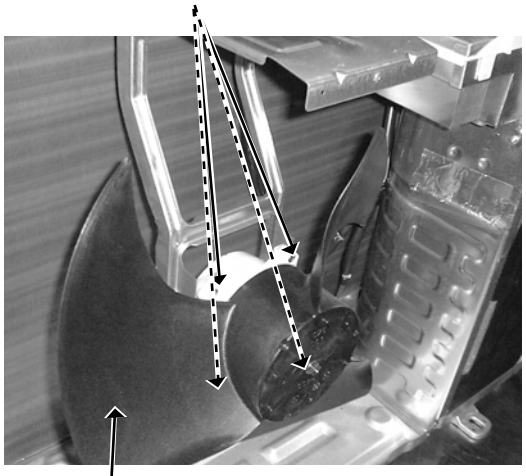
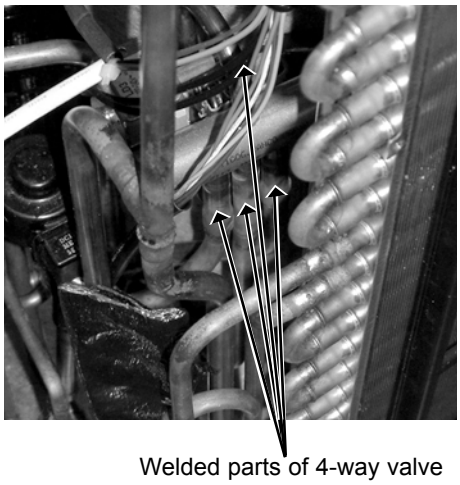
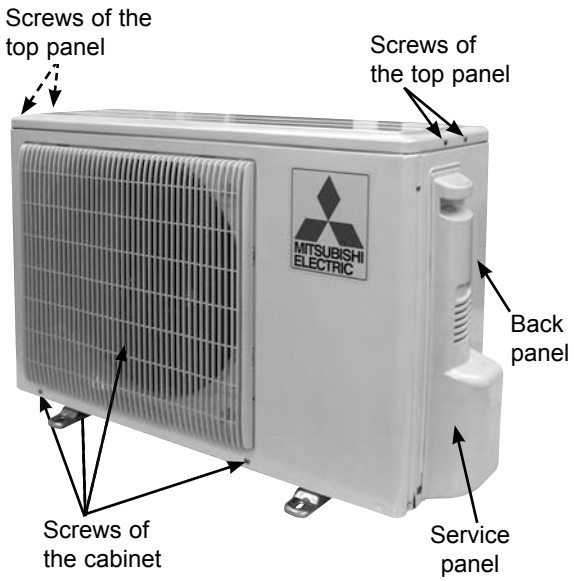
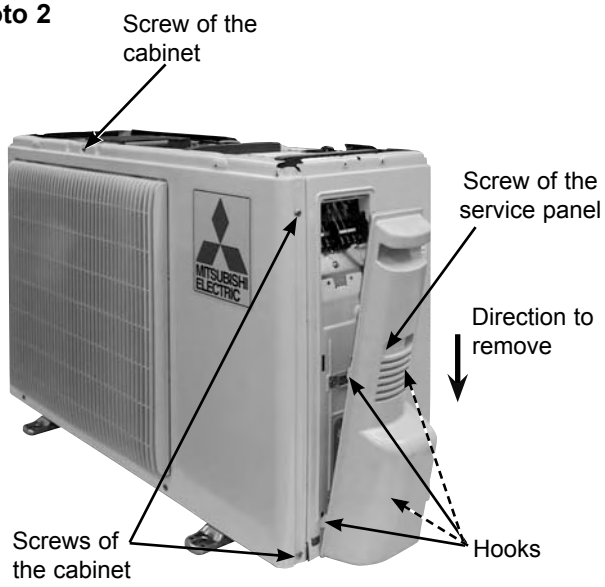


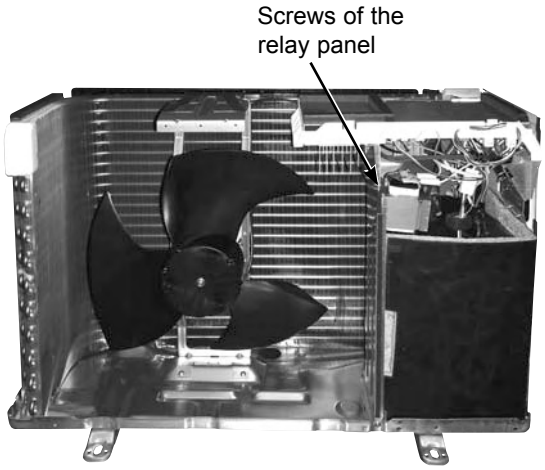
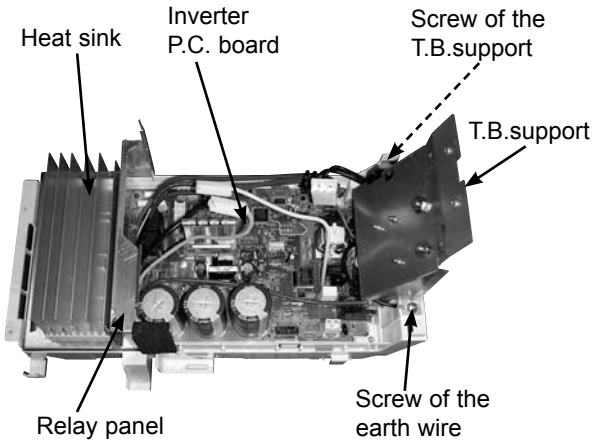
Photo 8

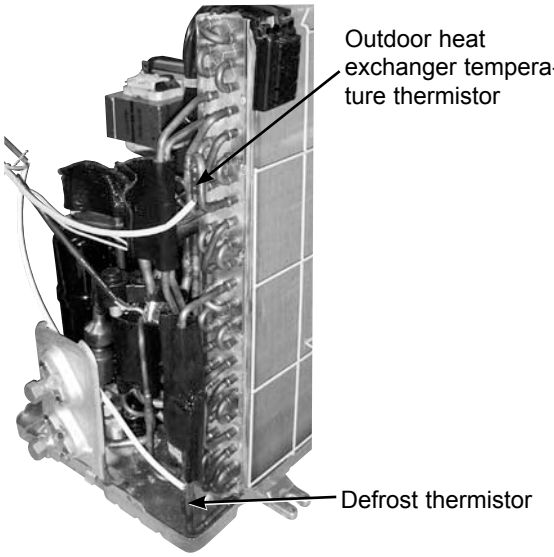
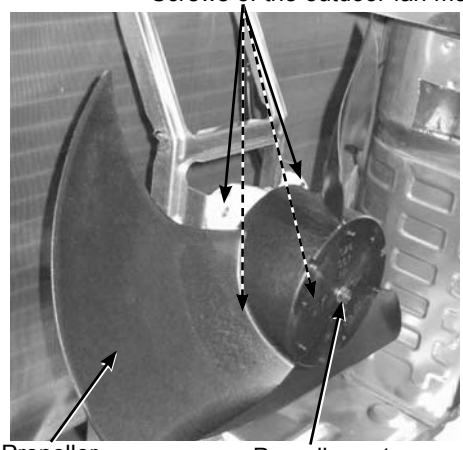
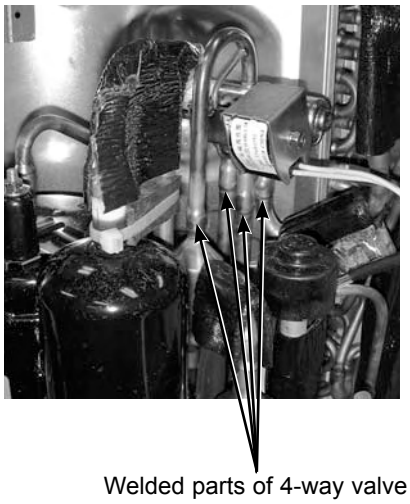


SUZ-KA25VAR1.TH **SUZ-KA35VAR1.TH**
SUZ-KA25VAHR1.TH **SUZ-KA35VAHR1.TH**
OUTDOOR UNIT

NOTE: Turn OFF power supply before disassembling.

OPERATING PROCEDURE	PHOTOS
1. Removing the cabinet (1) Remove the screw fixing the service panel. (2) Pull down the service panel and remove it. (3) Disconnect the power supply and indoor/outdoor connecting wire. (4) Remove the screws fixing the top panel. (5) Remove the top panel. (6) Remove the screws fixing the cabinet. (7) Remove the cabinet. (8) Remove the screws fixing the back panel. (9) Remove the back panel.	**Photo 1**  **Photo 2** 

OPERATING PROCEDURE	PHOTOS
2. Removing the inverter assembly, inverter P.C. board (1) Remove the cabinet and panels. (Refer to 1.) (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN721 (R.V. coil) CN722 (Defrost heater) SUZ-KA25/35VAHR1.TH CN932 (Fan motor) CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) CN724 (LEV) (3) Remove the compressor connector (CN61). (4) Remove the screws fixing the relay panel. (Photo 3) (5) Remove the inverter assembly. (Photo 4) (6) Remove the screw of the earth wire and screw of the T.B.support. (Photo 4) (7) Remove the relay panel from the inverter assembly. (8) Remove the inverter P.C. board from the relay panel.	**Photo 3**  **Photo 4 (Inverter assembly)** 
3. Removing R.V. coil (1) Remove the cabinet and panels. (Refer to 1.) (2) Disconnect the following connectors: <Inverter P.C. board> CN721 (R.V. coil) (3) Remove the R.V. coil. (Photo 5)	
4. Removing the discharge temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor (1) Remove the cabinet and panels. (Refer to 1.) (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) (3) Pull out the discharge temperature thermistor from its holder. (Photo 5) (4) Pull out the defrost thermistor from its holder. (Photo 6) (5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (Photo 6) (6) Pull out the ambient temperature thermistor from its holder.	**Photo 5**

OPERATING PROCEDURE	PHOTOS
5. Removing outdoor fan motor (1) Remove the cabinet and panels. (Refer to 1.) (2) Disconnect the following connectors: <Inverter P.C. board> CN932 (Fan motor) (3) Remove the propeller nut. (Photo 7) (4) Remove the propeller. (Photo 7) (5) Remove the screws fixing the fan motor. (Photo 7) (6) Remove the fan motor.	**Photo 6** 
6. Removing the compressor and 4-way valve (1) Remove the cabinet and panels. (Refer to 1.) (2) Remove the inverter assembly. (Refer to 2.) (3) Recover gas from the refrigerant circuit. **NOTE:** Recover gas from the pipes until the pressure gauge shows 0 kg/cm^2 (0 MPa). (4) Detach the welded part of the suction and the discharge pipe connected with compressor. (5) Remove the nuts of compressor legs. (6) Remove the compressor. (7) Detach the welded part of pipes connected with 4-way valve. (Photo 8)	**Photo 7**  **Photo 8** 

SUZ-KA50VA.TH SUZ-KA60VA.TH SUZ-KA71VA.TH
SUZ-KA50VA1.TH SUZ-KA60VA1.TH SUZ-KA71VA1.TH
SUZ-KA50VAR2.TH SUZ-KA60VAR2.TH
OUTDOOR UNIT

NOTE: Turn OFF power supply before disassembling.

OPERATING PROCEDURE

1. Removing the cabinet

(1) Remove the screws of the service panel.
(2) Remove the screws of the top panel.
(3) Remove the screw of the valve cover.
(4) Remove the service panel.
(5) Remove the top panel.
(6) Remove the valve cover.
(7) Remove the screws of the cabinet.
(8) Remove the cabinet.
(9) Remove the screws of the back panel.
(10) Remove the back panel.

PHOTOS

Photo 1

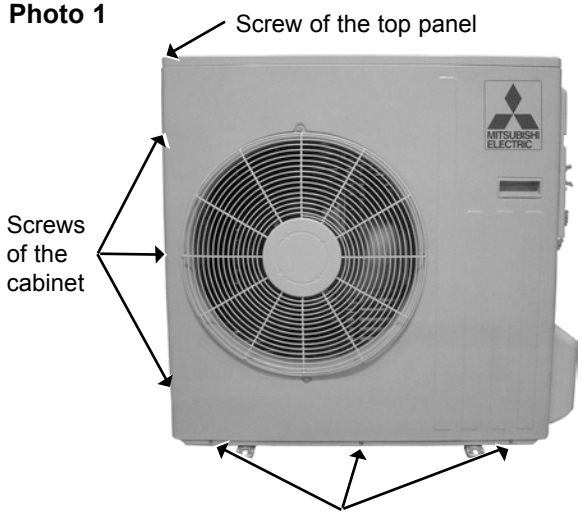


Photo 2

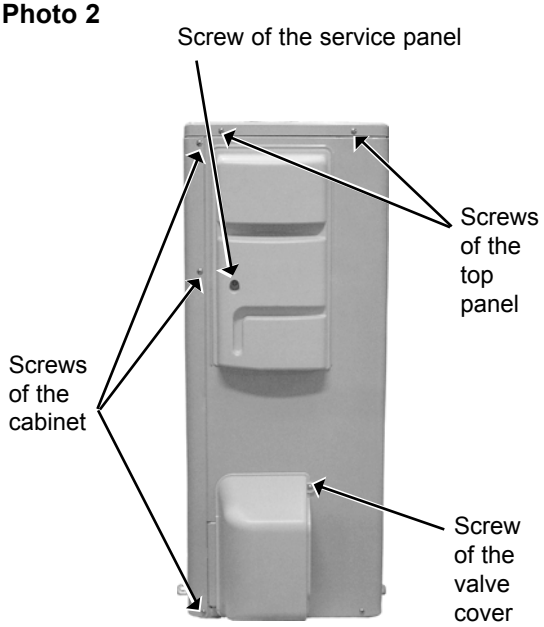
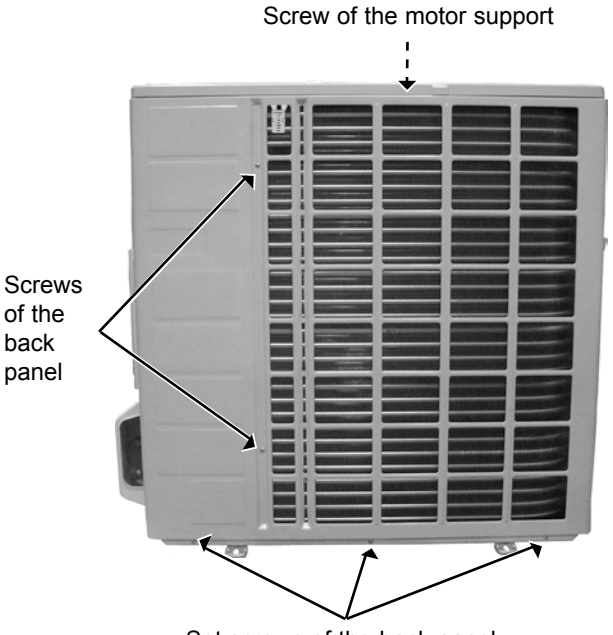


Photo 3



OPERATING PROCEDURE

2. Removing the inverter assembly, inverter P.C. board and power board (except for SUZ-KA50VAR2.TH)

(1) Remove the top panel, cabinet and service panel. (Refer to 1.)
(2) Remove the back panel.(Refer to 1.)
(3) Disconnect the following connectors;
<Electronic control P.C. board>
CN931 and CN932 (Fan motor)
CN795 (LEV)
CN661 (Discharge temperature thermistor, defrost thermistor and outdoor heat exchanger temperature thermistor)
<Noise filter P.C. board>
CN912 (4-way valve)
(4) Remove the compressor connector.
(5) Remove the screws fixing the relay panel.
(6) Remove the inverter assembly.
(7) Disconnect all connectors and lead wires on the electronic control P.C. board.
(8) Remove the electronic control P.C. board from the inverter assembly.
(9) Remove the screws fixing the power board assembly.
(10) Disconnect all connectors and lead wires on the power board.
(11) Remove the power board from the inverter assembly.
(12) Disconnect all connectors and lead wires on the noise filter P.C. board.
(13) Remove the noise filter P.C. board from the inverter assembly.

(SUZ-KA50VAR2.TH)

(1) Remove the cabinet and panels. (Refer to 1.)
(2) Disconnect the lead wire to the reactor and the following connectors;
<Inverter P.C. board>
CN721 (R.V.coil)
CN932 (Fan motor)
CN641 (Defrost thermistor and discharge temperature thermistor)
CN643 (Ambient temperature thermistor)
CN644 (Outdoor heat exchanger temperature thermistor)
CN724 (LEV)
(3) Remove the compressor connector (CN61).
(4) Remove the screws fixing the relay panel. (Photo 5)
(5) Remove the inverter assembly. (Photo 6)
(6) Remove the screw of the earth wire and screw of the T.B.support. (Photo 6)
(7) Remove the screw of the PB fixture.
(8) Remove the relay panel from the PB support.
(9) Remove the inverter P.C. board from the inverter assembly.

3. Removing R.V. coil

(1) Remove the top panel, cabinet and service panel. (Refer to 1)
(2) Remove the back panel. (Refer to 1.)
(3) Disconnect the following connectors;
Except for SUZ-KA50VAR2.TH
<Noise filter P.C. board>
CN912 (R.V. coil)

SUZ-KA50VAR2.TH
<inverter P.C. board>
CN721 (R.V. coil)
(4) Remove the R.V. coil. (Photo 11)

PHOTOS

Photo 4

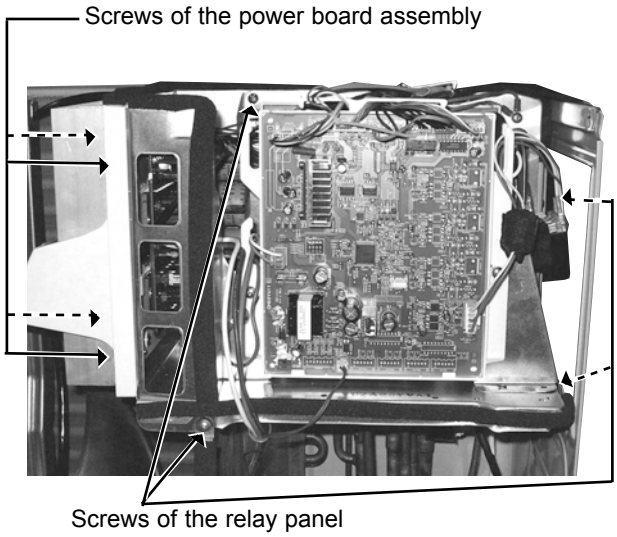


Photo 5 (SUZ-KA50VAR2.TH)

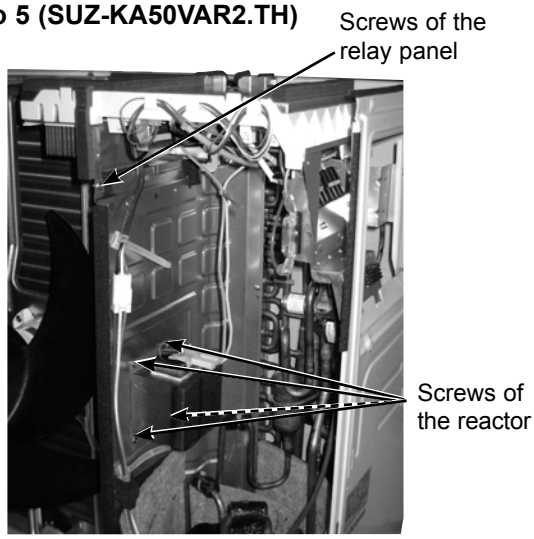
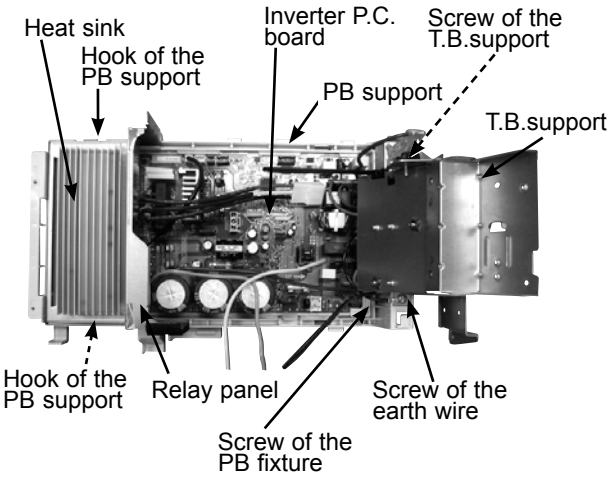
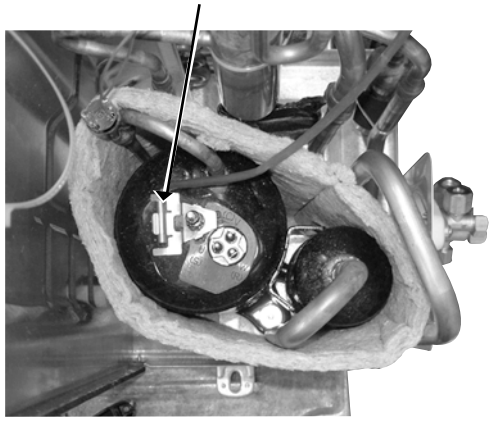
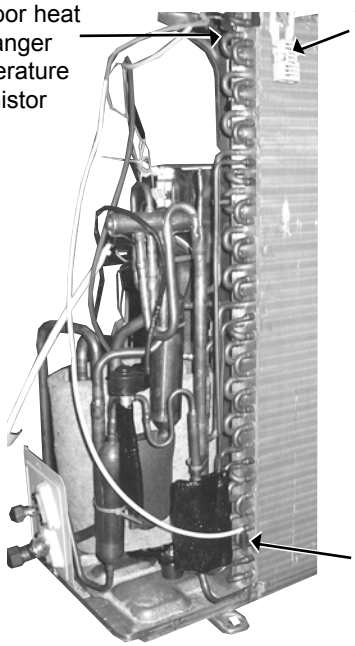
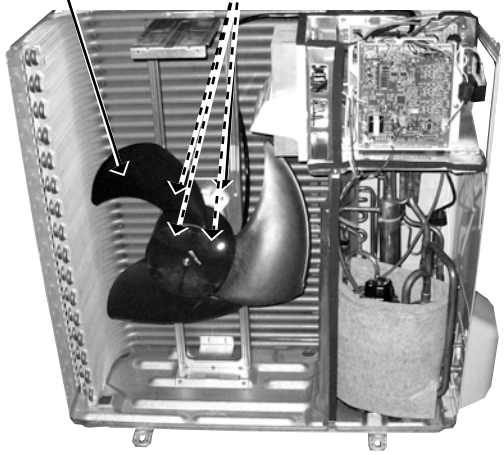
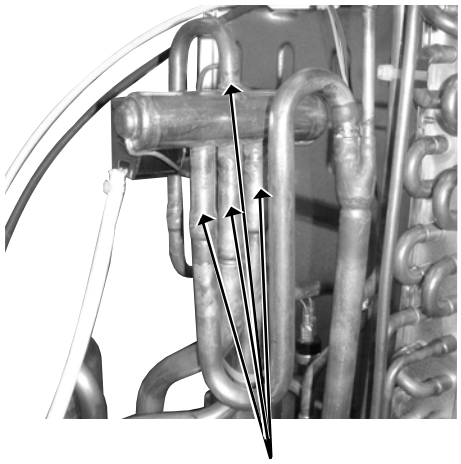
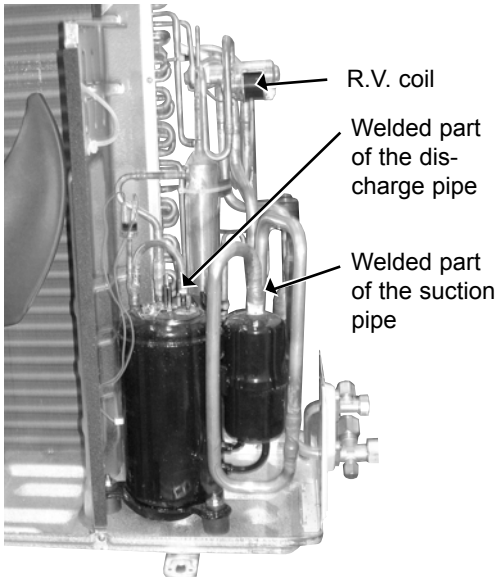
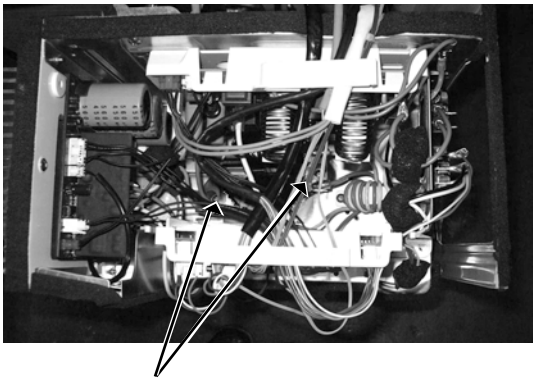


Photo 6 (SUZ-KA50VAR2.TH)



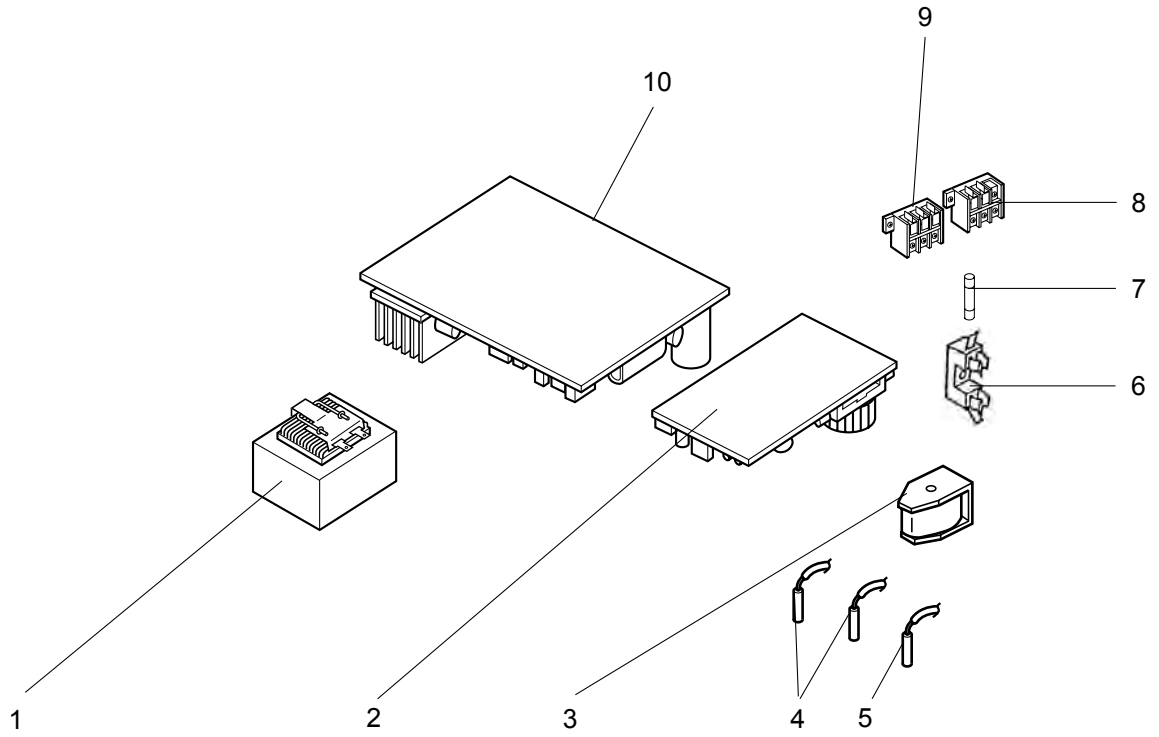
OPERATING PROCEDURE	PHOTOS
4. Removing the defrost thermistor, discharge temperature thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor (1) Remove the top panel, cabinet and service panel. (Refer to 1.) (2) Remove the back panel. (Refer to 1.) (3) Remove the inverter assembly. (Refer to 2.) (4) Pull out the defrost thermistor from its holder. (Photo 8) (5) Pull out the discharge temperature thermistor from its holder. (Photo 7) (6) Pull out the outdoor heat exchanger temperature thermistor from its holder. (Photo 8) (7) Pull out the ambient temperature thermistor from its holder. (Photo 8)	**Photo 7** Discharge temperature thermistor  **Photo 8** Outdoor heat exchanger temperature thermistor Ambient temperature thermistor Defrost thermistor 
5. Removing outdoor fan motor (1) Remove the top panel, cabinet and service panel. (Refer to 1.) (2) Remove the back panel. (Refer to 1.) (3) Disconnect the following connectors; Except for SUZ-KA50VAR2.TH <Electric control P.C. board> CN931 and CN932 (Fan motor) SUZ-KA50VAR2.TH <Inverter P.C. board> CN931 and CN932 (Fan motor) (4) Remove the propeller. (5) Remove the screws fixing the fan motor. (6) Remove the fan motor.	**Photo 9** Screws of the outdoor fan motor Propeller 

OPERATING PROCEDURE	PHOTOS
6. Removing the compressor and 4-way valve (1) Remove the top panel, cabinet and service panel. (Refer to 1.) (2) Remove the back panel. (Refer to 1.) (3) Remove the inverter assembly. (Refer to 2.) (4) Recover gas from the refrigerant circuit. **NOTE:** Recover gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa). (5) Detach the welded part of the suction and the discharge pipe connected with compressor. (Photo 11) (6) Remove the compressor nuts. (7) Remove the compressor. (8) Detach the welded part of 4-way valve and pipe. (Photo 10)	**Photo 10**  Welded parts of 4-way valve **Photo 11** 
7. Removing the reactor (1) Remove the top panel. (Refer to 1.) (2) Disconnect the reactor lead wire. (3) Remove the screws of the reactor, and remove the reactor.	**Photo 12**  Screws of the reactor

14 PARTS LIST (non-RoHS compliant)

SUZ-KA25VA.TH SUZ-KA35VA.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH

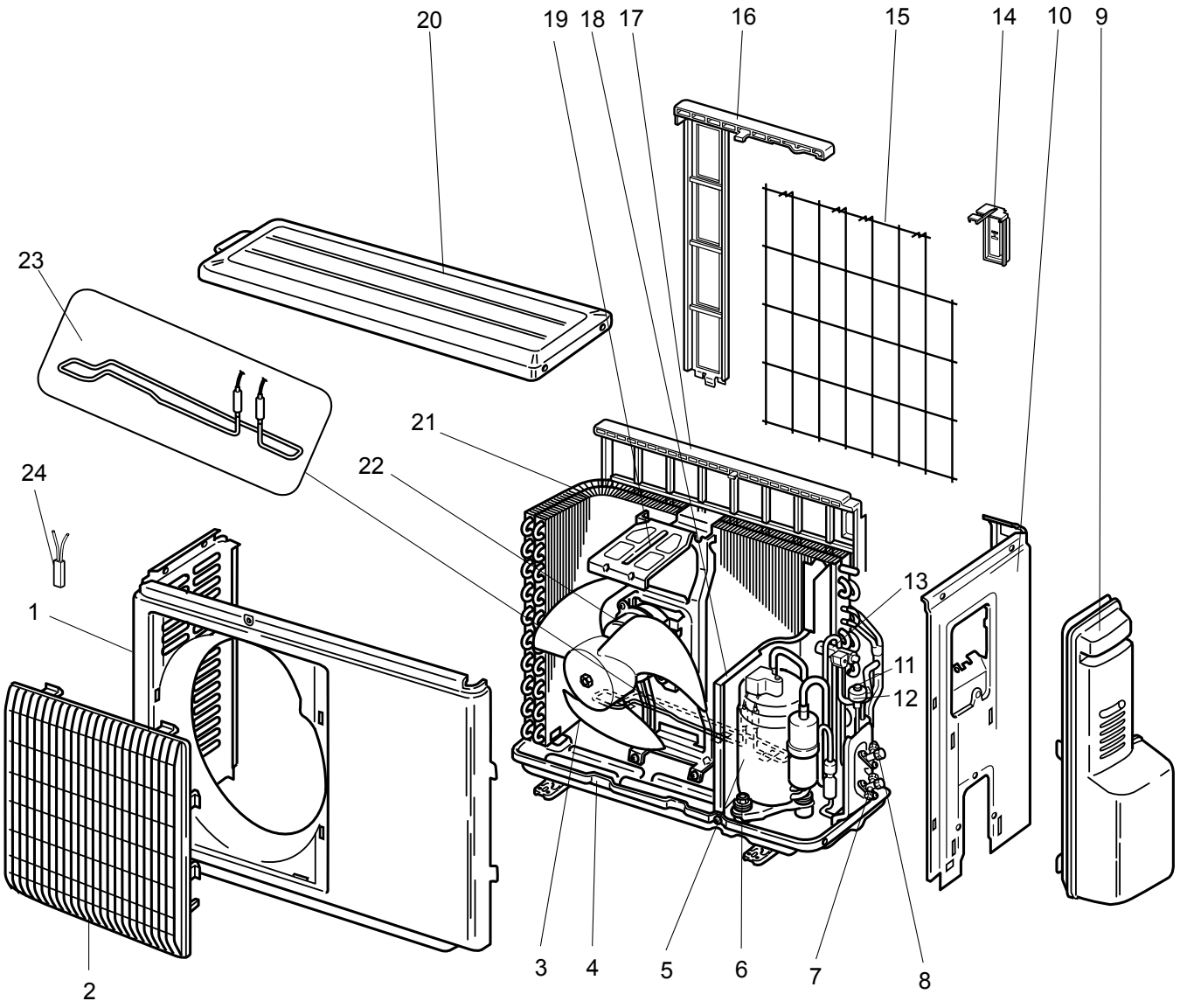
14-1. OUTDOOR UNIT ELECTRICAL PARTS



Part numbers that are circled are not shown in the illustration.

No.	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit				Remarks
				SUZ-KA25VA.TH	SUZ-KA25VAH.TH	SUZ-KA35VA.TH	SUZ-KA35VAH.TH	
1	E02 838 337	REACTOR	L61	1	1	1	1	
2	E02 927 444	POWER P.C. BOARD		1		1		
	E02 931 444	POWER P.C. BOARD			1		1	
3	E02 927 490	R.V. COIL	21S4	1	1	1	1	
4	E02 927 306	THERMISTOR SET	RT61,RT62	1	1	1	1	DEFROST, DISCHARGE
5	E02 927 308	AMBIENT TEMPERATURE THERMISTOR	RT65	1	1	1	1	
6	E02 735 241	FUSE HOLDER		1	1	1	1	
7	E02 735 382	FUSE	F61	1	1	1	1	250V/20A
8	E02 573 375	TERMINAL BLOCK	TB1	1	1	1	1	3P
9	E02 927 374	TERMINAL BLOCK	TB2	1	1	1	1	3P
10	E07 168 451	INVERTER P.C. BOARD		1				Including heat sink and RT64
	E07 184 451	INVERTER P.C. BOARD			1			Including heat sink and RT64
	E07 169 451	INVERTER P.C. BOARD				1		Including heat sink and RT64
	E07 185 451	INVERTER P.C. BOARD					1	Including heat sink and RT64
⑪	E02 127 382	FUSE	F71,F801	1	1	1	1	250V/3.15A
⑫	E02 661 385	VARISTOR	NR62,NR63,NR64	1	1	1	1	

SUZ-KA25VA.TH SUZ-KA35VA.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH
14-2. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS



SUZ-KA25VA.TH SUZ-KA35VA.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH

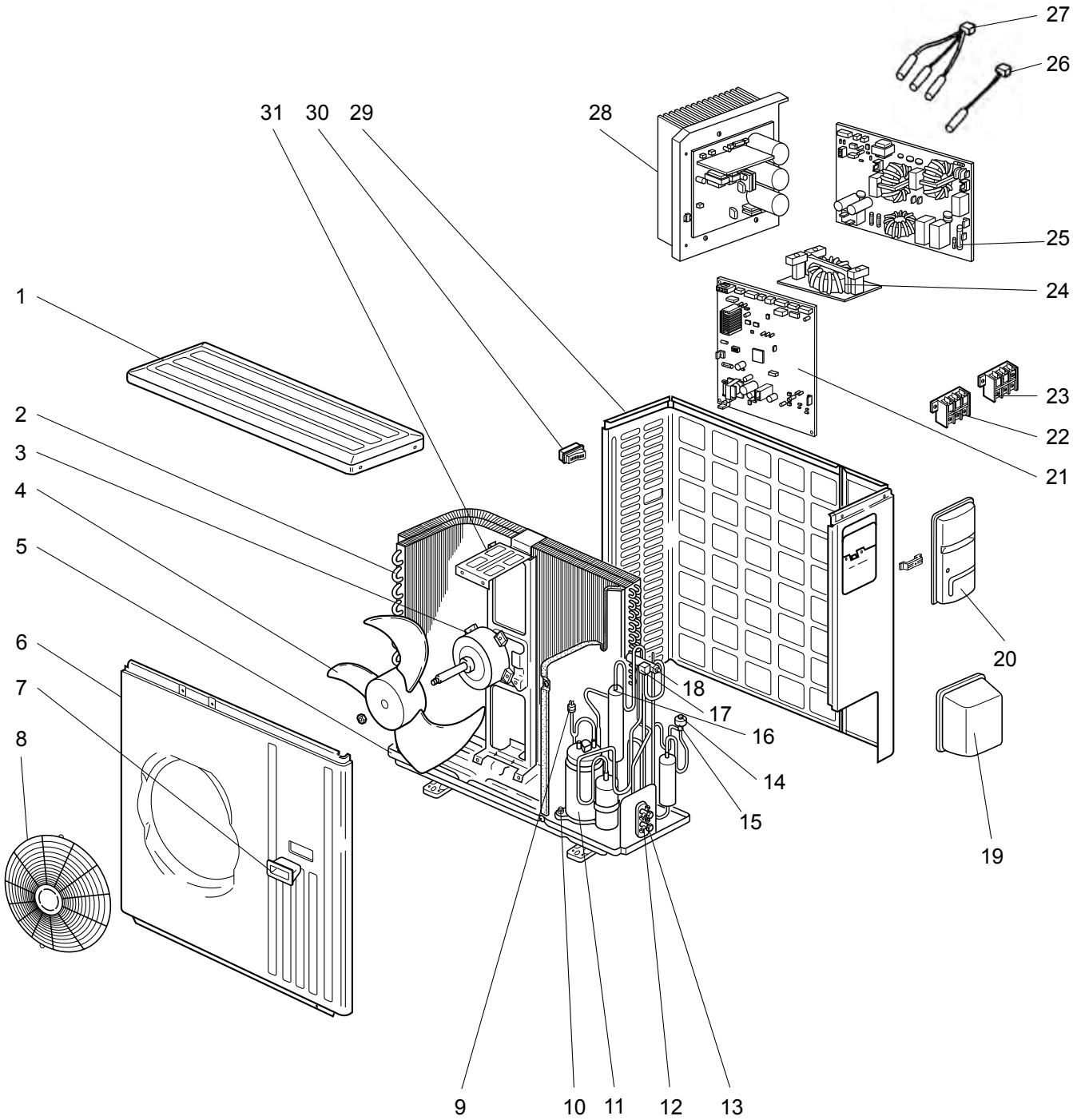
14-2. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS

Part number that is circled is not shown in the illustration.

No.	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit				Remarks
				SUZ-KA25VA.TH	SUZ-KA25VAH.TH	SUZ-KA35VA.TH	SUZ-KA35VAH.TH	
1	E02 927 232	CABINET		1	1	1	1	
2	E02 927 521	GRILLE		1	1	1	1	
3	E02 927 501	PROPELLER FAN		1	1	1	1	
4	E02 927 290	BASE		1		1		
	E02 928 290	BASE			1		1	
5	E02 927 900	COMPRESSOR	MC	1	1			KNB073FDVH
	E02 929 900	COMPRESSOR	MC			1	1	KNB092FCAH
6	E02 065 506	COMPRESSOR RUBBER SET		3	3	3	3	3RUBBERS/SET
7	E02 927 661	STOP VALVE (GAS)		1	1	1	1	ϕ9.52
8	E02 927 662	STOP VALVE (LIQUID)		1	1	1	1	ϕ6.35
9	E02 927 245	SERVICE PANEL		1	1	1	1	
10	E02 927 233	BACK PANEL		1	1	1	1	
11	E02 927 640	EXPANSION VALVE		1	1			
	E02 838 640	EXPANSION VALVE				1	1	
12	E02 927 493	EXPANSION VALVE COIL	LEV	1	1	1	1	
13	E02 927 961	4-WAY VALVE		1	1	1	1	
14	E02 928 079	THERMO HOLDER			1			
	E02 930 079	THERMO HOLDER					1	
15	E02 928 525	CONDENSER WIRE NET			1			
	E02 930 525	CONDENSER WIRE NET					1	
16	E02 928 523	CONDENSER NET			1			
	E02 930 523	CONDENSER NET					1	
17	E02 838 523	CONDENSER NET		1				
	E02 929 523	CONDENSER NET				1		
18	E02 927 293	SEPARATOR		1				
	E02 928 293	SEPARATOR			1			
	E02 929 293	SEPARATOR				1		
	E02 930 293	SEPARATOR					1	
19	E02 927 515	MOTOR SUPPORT		1	1			
	E02 929 515	MOTOR SUPPORT				1	1	
20	E02 927 297	TOP PANEL		1	1	1	1	
21	E02 927 630	OUTDOOR HEAT EXCHANGER		1	1			
	E02 929 630	OUTDOOR HEAT EXCHANGER				1	1	
22	E02 927 301	OUTDOOR FAN MOTOR	MF	1	1	1	1	RC0J50-□□
23	E02 840 526	DEFROST HEATER	H		1		1	
24	E02 840 381	HEATER PROTECTOR	26H		1		1	
㉕	E02 927 937	CAPILLARY TUBE		1	1			ϕ3.0×ϕ2.0×240
	E02 735 936	CAPILLARY TUBE				2	2	ϕ3.0×ϕ1.8×600

SUZ-KA50VA.TH SUZ-KA60VA.TH SUZ-KA71VA.TH

14-3. OUTDOOR UNIT STRUCTURAL PARTS, ELECTRICAL PARTS AND FUNCTIONAL PARTS

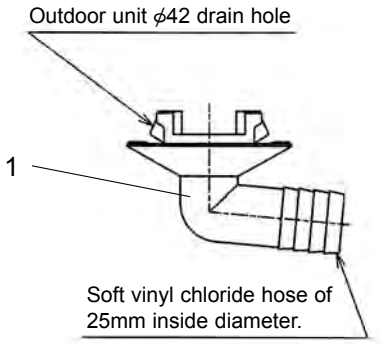


SUZ-KA50VA.TH SUZ-KA60VA.TH SUZ-KA71VA.TH
14-3. OUTDOOR UNIT STRUCTURAL PARTS, ELECTRICAL PARTS AND FUNCTIONAL PARTS

Part numbers that are circled are not shown in the illustration.

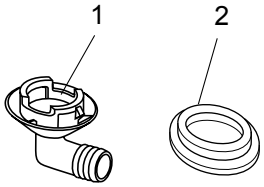
No.	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit SUZ-KA•VA.TH			Remarks
				50	60	71	
1	E02 819 297	TOP PANEL		1	1	1	
2	E02 851 630	OUTDOOR HEAT EXCHANGER		1	1		
	E02 853 630	OUTDOOR HEAT EXCHANGER				1	
3	E02 938 301	OUTDOOR FAN MOTOR	MF	1	1	1	RC0J60-□□
4	E02 851 501	PROPELLER FAN		1	1	1	
5	E02 851 290	BASE		1	1		
	E02 853 290	BASE				1	
6	E02 819 232	CABINET		1	1	1	
7	E02 819 009	HANDLE		1	1	1	
8	E02 819 521	FAN GUARD		1	1	1	
9	E02 853 646	HIGH PRESSURE SWITCH	HPS			1	
10	E02 065 506	COMPRESSOR RUBBER SET		3	3		3RUBBERS/SET
	E02 853 506	COMPRESSOR RUBBER SET				3	3RUBBERS/SET
11	E02 939 900	COMPRESSOR	MC	1	1		SNB130FLDH1
	E02 853 900	COMPRESSOR	MC			1	TNB220FMCH
12	E02 851 661	STOP VALVE(GAS)		1			ϕ12.7
	E02 819 661	STOP VALVE(GAS)			1	1	ϕ15.88
13	E02 821 662	STOP VALVE(LIQUID)		1	1		ϕ6.35
	E02 822 662	STOP VALVE(LIQUID)				1	ϕ9.52
14	E02 851 640	EXPANSION VALVE		1	1		
	E02 853 640	EXPANSION VALVE				1	
15	E02 851 493	EXPANSION VALVE COIL	LEV	1	1	1	
16	E02 853 299	OIL SEPARATOR				1	
17	E02 935 490	R.V. COIL	21S4	1	1	1	
18	E02 891 961	4-WAY VALVE		1	1	1	
19	E02 819 650	VALVE COVER		1	1	1	
20	E02 819 245	SERVICE PANEL		1	1	1	
21	E07 170 450	OUTDOOR ELECTRONIC CONTROL P.C. BOARD		1			
	E07 171 450	OUTDOOR ELECTRONIC CONTROL P.C. BOARD			1		
	E07 223 450	OUTDOOR ELECTRONIC CONTROL P.C. BOARD				1	
22	E02 935 374	TERMINAL BLOCK	TB1	1	1	1	3P
23	E02 823 375	TERMINAL BLOCK	TB2	1	1	1	3P
24	E02 851 337	REACTOR	L	1	1	1	
25	E02 935 444	NOISE FILTER P.C. BOARD		1	1	1	
26	E02 935 309	AMBIENT TEMPERATURE THERMISTOR	RT65	1	1	1	
27	E02 851 308	THERMISTOR SET	RT61,RT62,RT68	1	1	1	DEFROST, DISCHARGE OUTDOOR HEAT EXCHANGER
28	E02 935 440	POWER BOARD		1	1	1	Including heat sink and RT64
29	E02 819 233	BACK PANEL(OUT)		1	1	1	
30	E02 817 009	HANDLE		1	1	1	
31	E02 851 515	MOTOR SUPPORT		1	1	1	
㉜	E02 127 382	FUSE	F801	1	1	1	250V/3.15A
㉝	E02 737 382	FUSE	F911	1	1	1	250V/1A
㉞	E02 935 385	FUSE & VARISTOR	F64,NR64	1	1	1	250V/2A
㉟	E02 851 936	CAPILLARY TUBE(TAPER PIPE)		1	1		ϕ3.6xϕ2.4x50
	E02 853 936	CAPILLARY TUBE(TAPER PIPE)				1	ϕ3.6xϕ2.4x50
	E02 861 936	CAPILLARY TUBE				1	ϕ1.8xϕ0.6x1000

SUZ-KA25VA.TH SUZ-KA35VA.TH
14-4. DRAIN SOCKET



No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				SUZ-KA25VA.TH	SUZ-KA35VA.TH	
1	E02 838 704	DRAIN SOCKET		1	1	

SUZ-KA50VA.TH
SUZ-KA60VA.TH
SUZ-KA71VA.TH
14-5. ACCESSORY

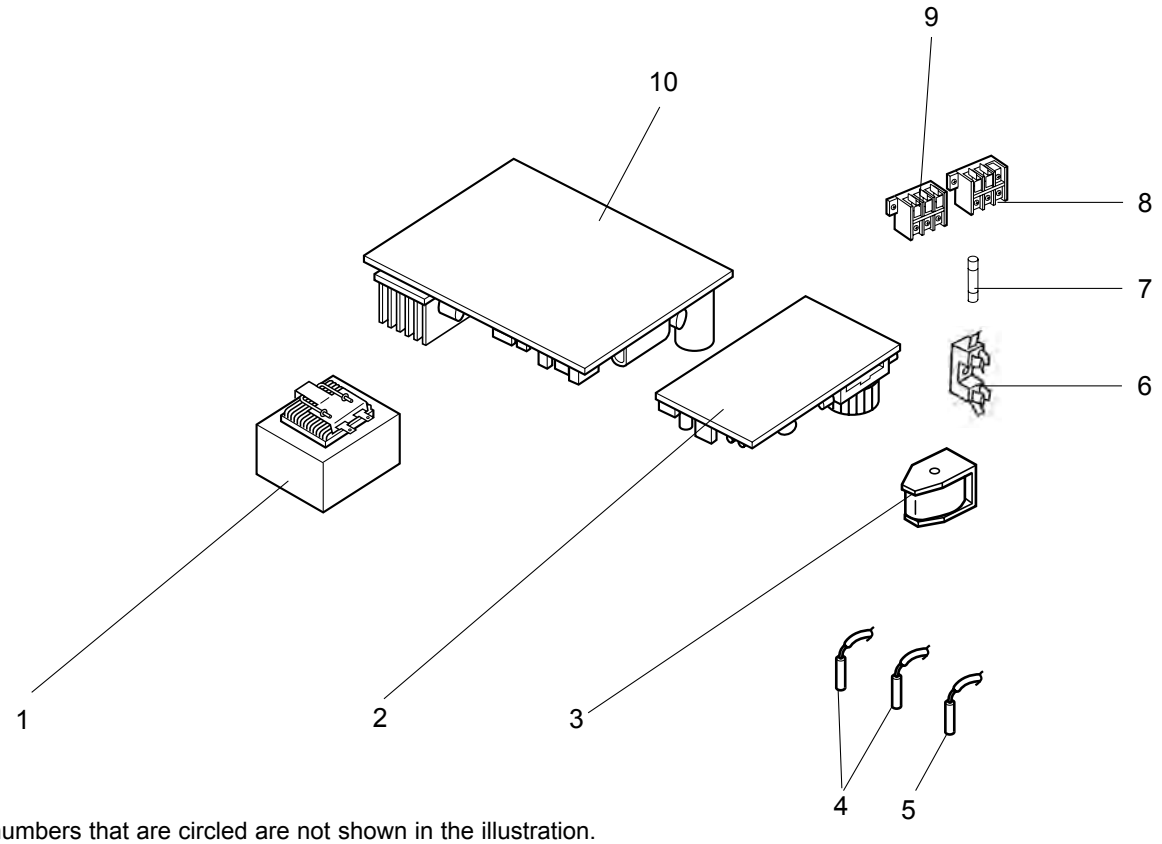


No.	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit			Remarks
				SUZ-KA50 VA.TH	SUZ-KA60 VA.TH	SUZ-KA71 VA.TH	
1	E02 817 704	DRAIN SOCKET		1	1	1	
2	E02 444 705	DRAIN CAP		2	2	2	ϕ33

15 RoHS PARTS LIST

SUZ-KA25VA.TH SUZ-KA35VA.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH

15-1. OUTDOOR UNIT ELECTRICAL PARTS

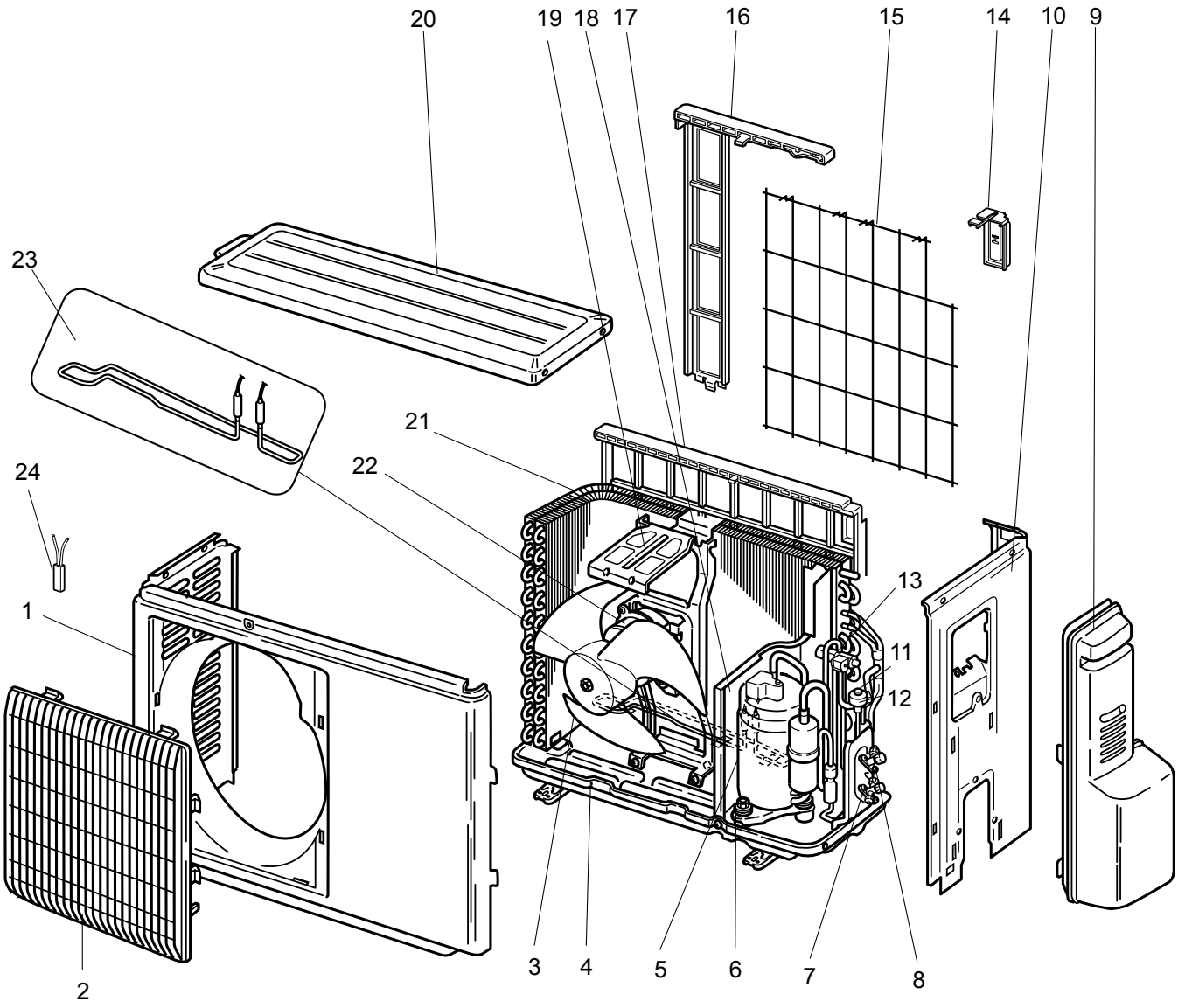


Part numbers that are circled are not shown in the illustration.

No.	RoHS	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit				Remarks
					SUZ-KA25VA.TH	SUZ-KA25VAH.TH	SUZ-KA35VA.TH	SUZ-KA35VAH.TH	
1	G	E12 838 337	REACTOR	L61	1	1	1	1	
2	G	E12 927 444	POWER P.C. BOARD		1		1		
	G	E12 931 444	POWER P.C. BOARD			1		1	
3	G	E12 927 490	R.V. COIL	21S4	1	1	1	1	
4	G	E12 927 306	THERMISTOR SET	RT61,RT62	1	1	1	1	DEFROST, DISCHARGE
5	G	E12 927 308	AMBIENT TEMPERATURE THERMISTOR	RT65	1	1	1	1	
6	G	E12 735 241	FUSE HOLDER		1	1	1	1	
7	G	E12 735 382	FUSE	F61	1	1	1	1	250V/20A
8	G	E12 573 375	TERMINAL BLOCK	TB1	1	1	1	1	3P
9	G	E12 927 374	TERMINAL BLOCK	TB2	1	1	1	1	3P
10	G	E17 168 451	INVERTER P.C. BOARD		1				Including heat sink and RT64
	G	E17 184 451	INVERTER P.C. BOARD			1			Including heat sink and RT64
	G	E17 169 451	INVERTER P.C. BOARD				1		Including heat sink and RT64
	G	E17 185 451	INVERTER P.C. BOARD					1	Including heat sink and RT64
⑪	G	E12 127 382	FUSE	F71,F801	1	1	1	1	250V/3.15A
⑫	G	E12 661 385	VARISTOR	NR62,NR63,NR64	1	1	1	1	

SUZ-KA25VA.TH SUZ-KA35VA.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH

15-2. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS



SUZ-KA25VA.TH SUZ-KA35VA.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH

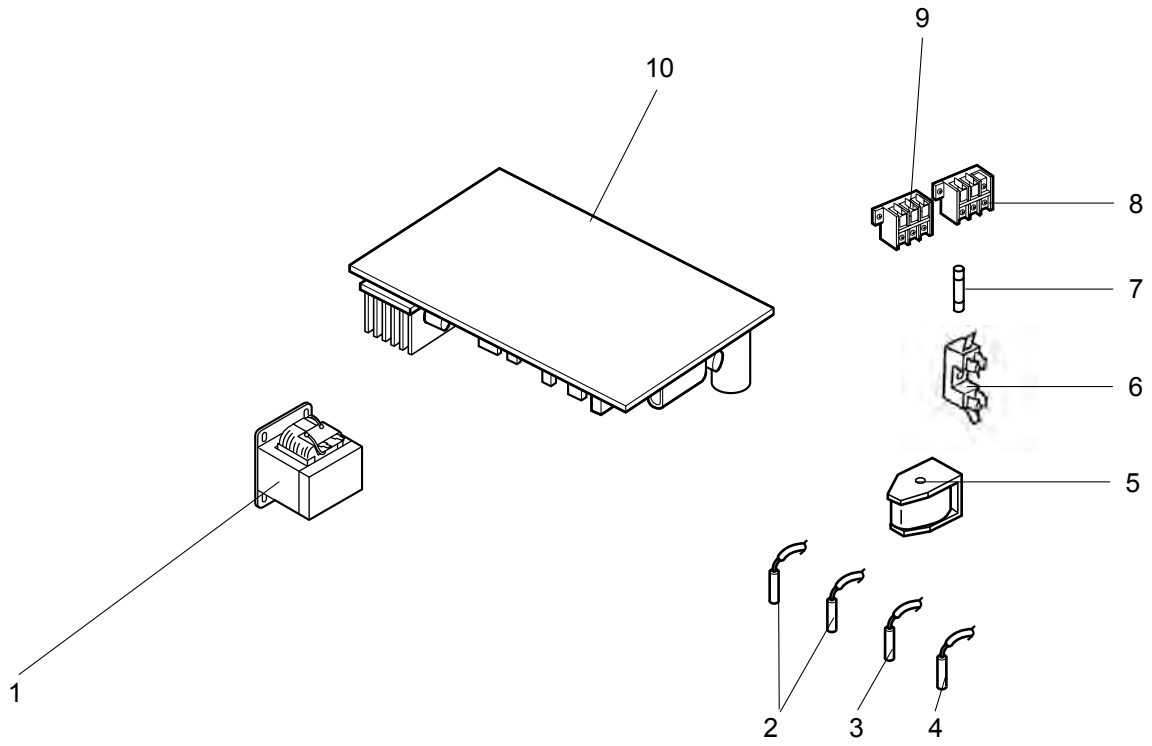
15-2. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS

Part number that is circled is not shown in the illustration.

No.	RoHS	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit				Remarks
					SUZ-KA25VA.TH	SUZ-KA25VAH.TH	SUZ-KA35VA.TH	SUZ-KA35VAH.TH	
1	G	E12 927 232	CABINET		1	1	1	1	
2	G	E12 927 521	GRILLE		1	1	1	1	
3	G	E12 927 501	PROPELLER FAN		1	1	1	1	
4	G	E12 927 290	BASE		1		1		
	G	E12 928 290	BASE			1		1	
5	G	E12 927 900	COMPRESSOR	MC	1	1			KNB073FDVHC
	G	E12 929 900	COMPRESSOR	MC			1	1	KNB092FCAH
6	G	E12 065 506	COMPRESSOR RUBBER SET		3	3	3	3	3RUBBERS/SET
7	G	E12 927 661	STOP VALVE (GAS)		1	1	1	1	ϕ9.52
8	G	E12 927 662	STOP VALVE (LIQUID)		1	1	1	1	ϕ6.35
9	G	E12 927 245	SERVICE PANEL		1	1	1	1	
10	G	E12 927 233	BACK PANEL		1	1	1	1	
11	G	E12 927 640	EXPANSION VALVE		1	1			
	G	E12 838 640	EXPANSION VALVE				1	1	
12	G	E12 927 493	EXPANSION VALVE COIL	LEV	1	1	1	1	
13	G	E12 927 961	4-WAY VALVE		1	1	1	1	
14	G	E12 928 079	THERMO HOLDER			1			
	G	E12 930 079	THERMO HOLDER					1	
15	G	E12 928 525	CONDENSER WIRE NET			1			
	G	E12 930 525	CONDENSER WIRE NET					1	
16	G	E12 928 523	CONDENSER NET			1			
	G	E12 930 523	CONDENSER NET					1	
17	G	E12 838 523	CONDENSER NET		1				
	G	E12 929 523	CONDENSER NET				1		
18	G	E12 927 293	SEPARATOR		1				
	G	E12 928 293	SEPARATOR			1			
	G	E12 929 293	SEPARATOR				1		
	G	E12 930 293	SEPARATOR					1	
19	G	E12 927 515	MOTOR SUPPORT		1	1			
	G	E12 929 515	MOTOR SUPPORT				1	1	
20	G	E12 927 297	TOP PANEL		1	1	1	1	
21	G	E12 927 630	OUTDOOR HEAT EXCHANGER		1	1			
	G	E12 929 630	OUTDOOR HEAT EXCHANGER				1	1	
22	G	E12 927 301	OUTDOOR FAN MOTOR	MF	1	1	1	1	RC0J50-□□
23	G	E12 840 526	DEFROST HEATER	H		1		1	
24	G	E12 840 381	HEATER PROTECTOR	26H		1		1	
㉕	G	E12 927 937	CAPILLARY TUBE		1	1			ϕ3.0×ϕ2.0×240
	G	E12 735 936	CAPILLARY TUBE				2	2	ϕ3.0×ϕ1.8×600

SUZ-KA25VAR1.TH SUZ-KA35VAR1.TH
SUZ-KA25VAHR1.TH SUZ-KA35VAHR1.TH

15-3. OUTDOOR UNIT ELECTRICAL PARTS



SUZ-KA25VAR1.TH SUZ-KA35VAR1.TH
SUZ-KA25VAHR1.TH SUZ-KA35VAHR1.TH

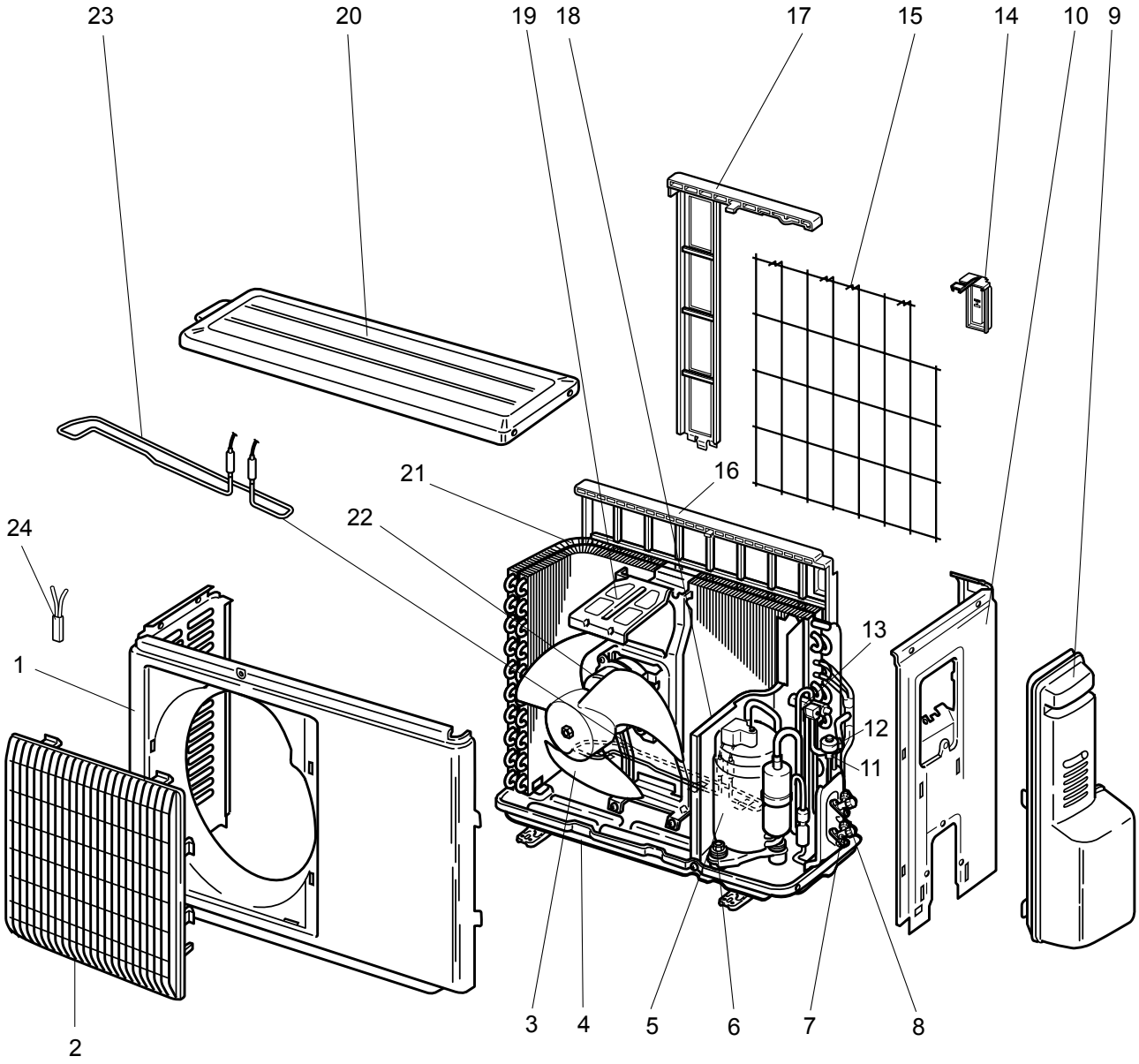
15-3. OUTDOOR UNIT ELECTRICAL PARTS

Part numbers that are circled are not shown in the illustration.

No.	RoHS	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit				Remarks
					SUZ-KA·VAR1.TH		SUZ-KA·VAHR1.TH		
					25	35	25	35	
1	G	E12 838 337	REACTOR	L61	1	1	1	1	
2	G	E12 C34 306	THERMISTOR SET	RT61,RT62	1	1	1	1	DEFROST, DISCHARGE
3	G	E12 927 308	AMBIENT TEMPERATURE THERMISTOR	RT65	1	1	1	1	
4	G	E12 C34 307	OUTDOOR HEAT EXCHENGER TEMPERATURE THERMISTOR	RT68	1	1	1	1	
5	G	E12 C34 490	R.V. COIL	21S4	1	1	1	1	
6	G	E12 735 241	FUSE HOLDER		1	1	1	1	
7	G	E12 735 382	FUSE	F61	1	1	1	1	T20AL250V
8	G	E12 D69 374	TERMINAL BLOCK	TB1	1	1	1	1	3P
9	G	E12 D70 374	TERMINAL BLOCK	TB2	1	1	1	1	3P
10	G	E17 573 451	INVERTER P.C. BOARD		1				Including heat sink and RT64
	G	E17 574 451	INVERTER P.C. BOARD			1			
	G	E17 575 451	INVERTER P.C. BOARD				1		
	G	E17 576 451	INVERTER P.C. BOARD					1	
⑪	G	E12 784 382	FUSE	F701,F801,F901	1	1	1	1	T3.15AL 250V
⑫	G	E12 661 385	VARISTOR	NR61~NR64	1	1	1	1	

SUZ-KA25VAR1.TH SUZ-KA35VAR1.TH
SUZ-KA25VAHR1.TH SUZ-KA35VAHR1.TH

15-4. OUTDOOR UNIT UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS



SUZ-KA25VAR1.TH SUZ-KA35VAR1.TH
SUZ-KA25VAHR1.TH SUZ-KA35VAHR1.TH

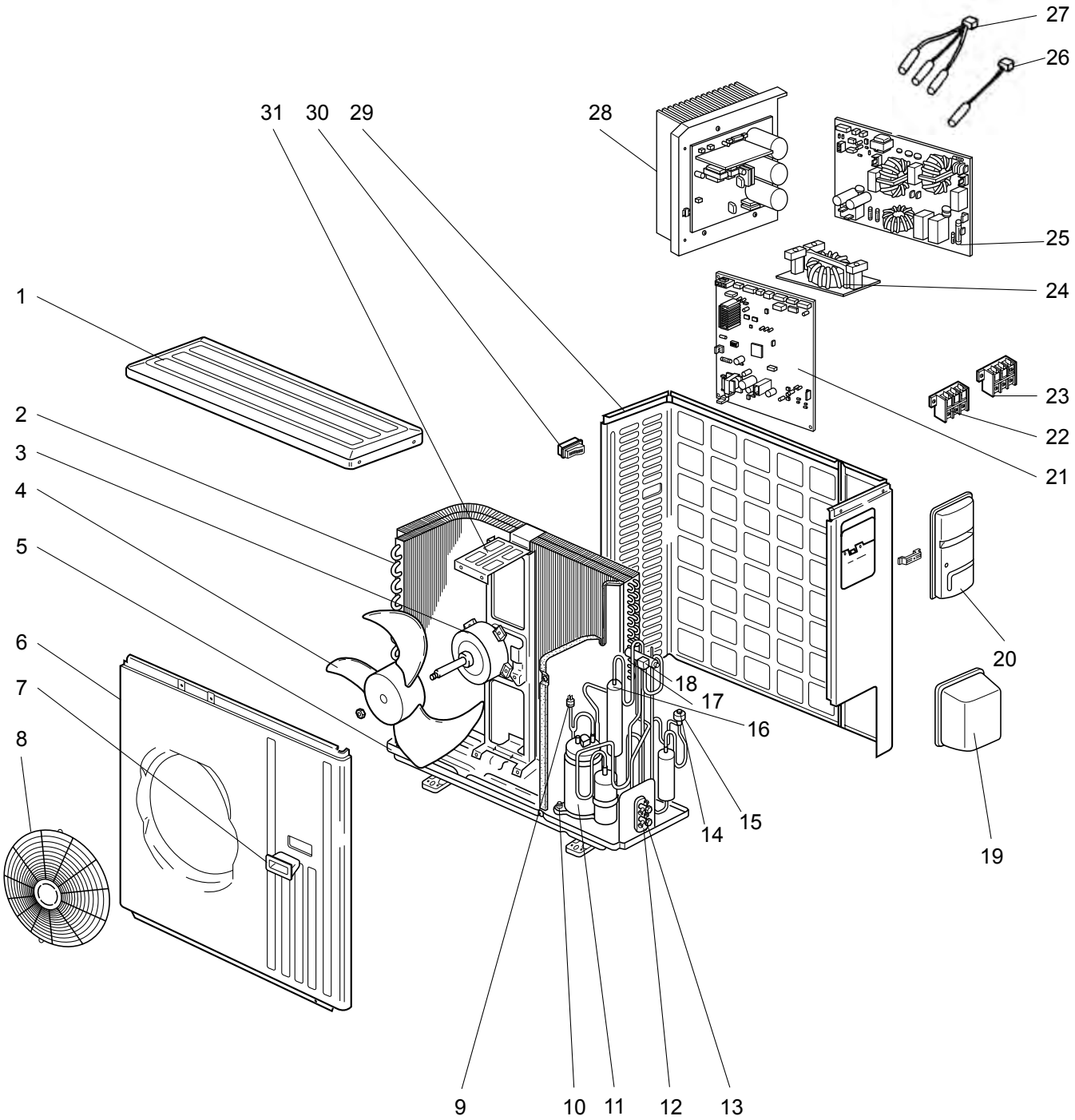
15-4. OUTDOOR UNIT UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS

Part numbers that are circled are not shown in the illustration.

No.	RoHS	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit				Remarks
					SUZ-KA·VAR1.TH		SUZ-KA·VAHR1.TH		
					25	35	25	35	
1	G	E12 927 232	CABINET		1	1	1	1	
2	G	E12 927 521	GRILLE		1	1	1	1	
3	G	E12 927 501	PROPELLER		1	1	1	1	
4	G	E12 D69 290	BASE		1	1			
	G	E12 D70 290	BASE				1	1	
5	G	E12 D69 900	COMPRESSOR	MC	1		1		KNB073FFDHC
	G	E12 D70 900	COMPRESSOR	MC		1		1	KNB092FFAHC
6	G	E12 065 506	COMPRESSOR RUBBER SET		3	3	3	3	3 RUBBERS/SET
7	G	E12 D69 661	STOP VALVE (GAS)		1	1	1	1	ø9.52
8	G	E12 D58 662	STOP VALVE (LIQUID)		1	1	1	1	ø6.35
9	G	E12 927 245	SERVICE PANEL		1	1	1	1	
10	G	E12 927 233	BACK PANEL		1	1	1	1	
11	G	E12 927 640	EXPANSION VALVE		1	1	1	1	
12	G	E12 927 493	EXPANSION VALVE COIL	LEV	1	1	1	1	
13	G	E12 D65 961	4-WAY VALVE		1	1	1	1	
14	G	E12 928 079	THERMO HOLDER				1		
	G	E12 930 079	THERMO HOLDER					1	
15	G	E12 928 525	CONDENSER WIRE NET				1		
	G	E12 930 525	CONDENSER WIRE NET					1	
16	G	E12 B83 523	CONDENSER NET		1				
	G	E12 929 523	CONDENSER NET			1			
17	G	E12 928 523	CONDENSER NET				1		
	G	E12 930 523	CONDENSER NET					1	
18	G	E12 D69 293	SEPARATOR		1				
	G	E12 C34 293	SEPARATOR			1			
	G	E12 D77 293	SEPARATOR				1		
	G	E12 C36 293	SEPARATOR					1	
19	G	E12 927 515	MOTOR SUPPORT		1		1		
	G	E12 929 515	MOTOR SUPPORT			1		1	
20	G	E12 927 297	TOP PANEL		1	1	1	1	
21	G	E12 D69 630	OUTDOOR HEAT EXCHANGER		1		1		
	G	E12 D70 630	OUTDOOR HEAT EXCHANGER			1		1	
22	G	E12 D69 301	OUTDOOR FAN MOTOR	MF	1	1	1	1	RC0J50-□□
23	G	E12 C36 526	DEFROST HEATER	H			1	1	
24	G	E12 C36 381	HEATER PROTECTOR	26H			1	1	
(25)	G	E12 927 937	CAPILLARY TUBE		1	1	1	1	ø3.0 × ø2.0 × 240
(26)	G	E12 735 936	CAPILLARY TUBE			2		2	ø3.0 × ø1.8 × 600

SUZ-KA50VA.TH SUZ-KA60VA.TH SUZ-KA71VA.TH SUZ-KA60VAR2.TH
SUZ-KA50VA$_1$.TH SUZ-KA60VA$_1$.TH SUZ-KA71VA$_1$.TH

15-5. OUTDOOR UNIT STRUCTURAL PARTS, ELECTRICAL PARTS AND FUNCTIONAL PARTS

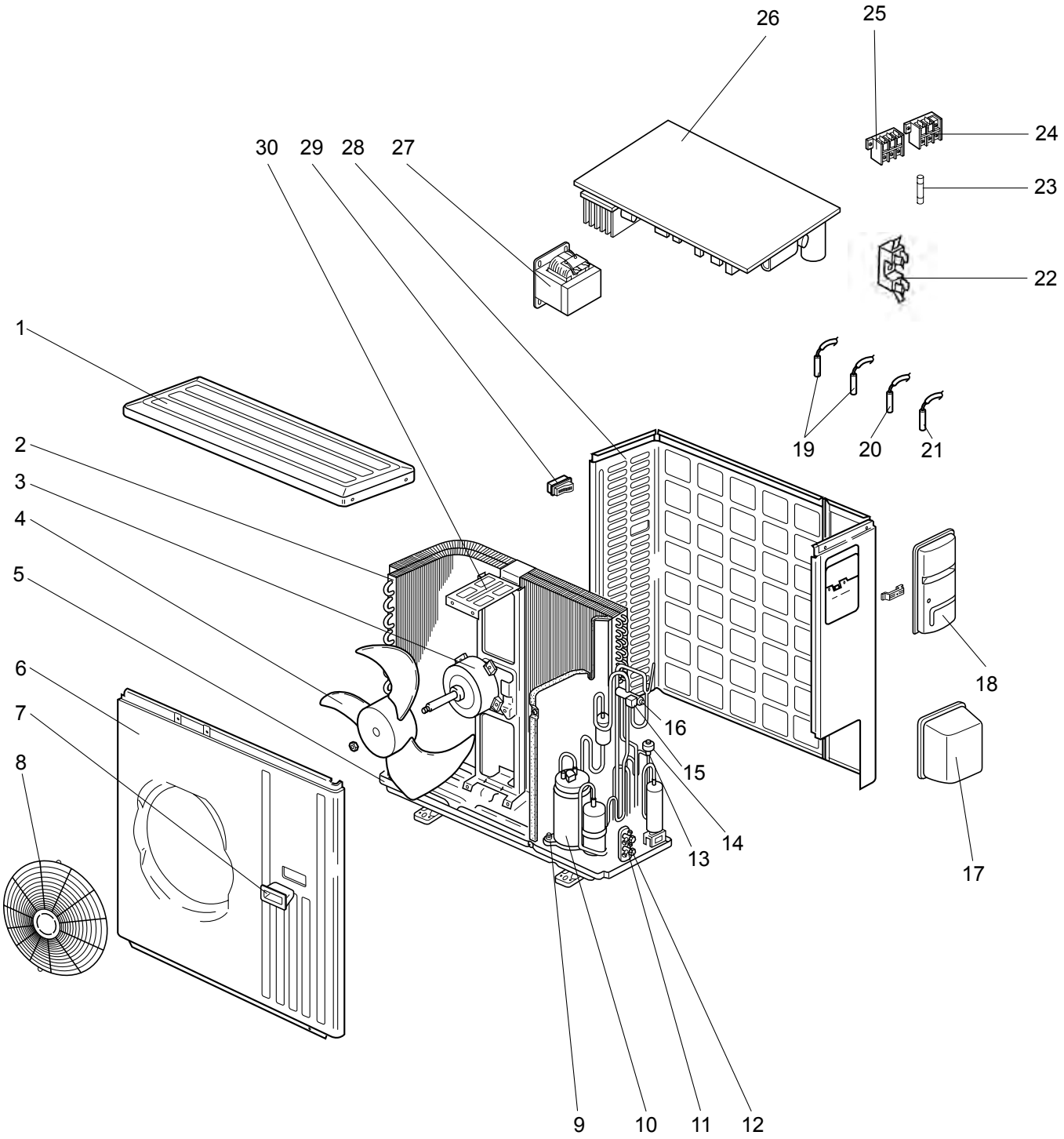


Part numbers that are circled are not shown in the illustration.

No.	RoHS	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit							Remarks
					SUZ-KA•VA.TH			SUZ-KA•VA1.TH			SUZ-KA•VAR2.TH	
					50	60	71	50	60	71	60	
1	G	E12 819 297	TOP PANEL		1	1	1	1	1	1	1	
2	G	E12 851 630	OUTDOOR HEAT EXCHANGER		1	1		1	1		1	
	G	E12 853 630	OUTDOOR HEAT EXCHANGER				1			1		
3	G	E12 938 301	OUTDOOR FAN MOTOR	MF	1	1	1	1	1	1	1	RC0J60- □□
4	G	E12 851 501	PROPELLER FAN		1	1	1	1	1	1	1	
5	G	E12 851 290	BASE		1	1		1	1		1	
	G	E12 853 290	BASE				1			1		
6	G	E12 819 232	CABINET		1	1	1	1	1	1	1	
7	G	E12 819 009	HANDLE		1	1	1	1	1	1	1	
8	G	E12 819 521	FAN GUARD		1	1	1	1	1	1	1	
9	G	E12 853 646	HIGH PRESSURE SWITCH	HPS			1			1	1	
10	G	E12 065 506	COMPRESSOR RUBBER SET		3	3		3	3			3RUBBERS/SET
	G	E12 853 506	COMPRESSOR RUBBER SET				3			3		3RUBBERS/SET
	G	E12 C34 506	COMPRESSOR RUBBER SET								3	3RUBBERS/SET
11	G	E12 939 900	COMPRESSOR	MC	1	1		1	1			SNB130FLDH1
	G	E12 853 900	COMPRESSOR	MC			1			1		TNB220FMCHT
	G	E12 C37 900	COMPRESSOR	MC							1	SNB130FGBH
12	G	E12 851 661	STOP VALVE(GAS)		1			1				ϕ12.7
	G	E12 819 661	STOP VALVE(GAS)			1	1		1	1	1	ϕ15.88
13	G	E12 821 662	STOP VALVE(LIQUID)		1	1		1	1		1	ϕ6.35
	G	E12 822 662	STOP VALVE(LIQUID)				1			1		ϕ9.52
14	G	E12 851 640	EXPANSION VALVE		1	1		1	1		1	
	G	E12 853 640	EXPANSION VALVE				1			1		
15	G	E12 851 493	EXPANSION VALVE COIL	LEV	1	1	1	1	1	1	1	
16	G	E12 853 299	OIL SEPARATOR				1			1		
17	G	E12 935 490	R.V. COIL	21S4	1	1	1	1	1	1		
	G	E12 D02 490	R.V. COIL	21S4							1	
18	G	E12 891 961	4-WAY VALVE		1	1	1	1	1	1		
	G	E12 C18 961	4-WAY VALVE								1	
19	G	E12 819 650	VALVE COVER		1	1	1	1	1	1	1	
20	G	E12 819 245	SERVICE PANEL		1	1	1	1	1	1	1	
21	G	E17 170 450	OUTDOOR ELECTRONIC CONTROL P.C. BOARD		1							
	G	E17 171 450	OUTDOOR ELECTRONIC CONTROL P.C. BOARD			1						
	G	E17 223 450	OUTDOOR ELECTRONIC CONTROL P.C. BOARD				1					
	G	E17 313 450	OUTDOOR ELECTRONIC CONTROL P.C. BOARD					1				
	G	E17 314 450	OUTDOOR ELECTRONIC CONTROL P.C. BOARD						1			
	G	E17 315 450	OUTDOOR ELECTRONIC CONTROL P.C. BOARD							1		
	G	E17 525 450	OUTDOOR ELECTRONIC CONTROL P.C. BOARD								1	
22	G	E12 823 375	TERMINAL BLOCK	TB2	1	1	1	1	1	1		3P
	G	E12 D69 374	TERMINAL BLOCK	TB2							1	3P
23	G	E12 935 374	TERMINAL BLOCK	TB1	1	1	1	1	1	1	1	3P
24	G	E12 851 337	REACTOR	L	1	1	1	1	1	1	1	
25	G	E12 935 444	NOISE FILTER P.C. BOARD		1	1	1	1	1	1	1	
26	G	E12 935 309	AMBIENT TEMPERATURE THERMISTOR	RT65	1	1	1	1	1	1	1	
27	G	E12 851 308	THERMISTOR SET	RT61,RT62,RT68	1	1	1	1	1	1	1	DEFROST, DISCHARGE OUTDOOR HEAT EXCHANGER
28	G	E12 935 440	POWER BOARD		1	1	1	1	1	1		Including heatsink and RT64
	G	E12 B79 440	POWER BOARD								1	Including heatsink and RT64
29	G	E12 819 233	BACK PANEL(OUT)		1	1	1	1	1	1		
	G	E12 D58 233	BACK PANEL(OUT)								1	
30	G	E12 817 009	HANDLE		1	1	1	1	1	1	1	
31	G	E12 851 515	MOTOR SUPPORT		1	1	1	1	1	1	1	
㉜	G	E12 127 382	FUSE	F801	1	1	1	1	1	1		250V/3.15A
	G	E12 784 382	FUSE	F801							1	250V/3.15A
㉝	G	E12 737 382	FUSE	F911	1	1	1	1	1	1		250V/1A
	G	E12 B79 382	FUSE	F911							1	250V/1A
㉞	G	E12 935 385	FUSE & VARISTOR	F64,NR64	1	1	1	1	1	1		250V/2A
	G	E12 977 385	FUSE & VARISTOR	F64,NR64							1	250V/2A
㉟	G	E12 851 936	CAPILLARY TUBE(TAPER PIPE)		1	1		1	1		1	ϕ3.6xϕ2.4x50
	G	E12 853 936	CAPILLARY TUBE(TAPER PIPE)				1			1		ϕ3.6xϕ2.4x50
	G	E12 861 936	CAPILLARY TUBE				1			1		ϕ1.8xϕ0.6x1000

SUZ-KA50VAR2.TH

15-6. OUTDOOR UNIT STRUCTURAL PARTS, ELECTRICAL PARTS AND FUNCTIONAL PARTS



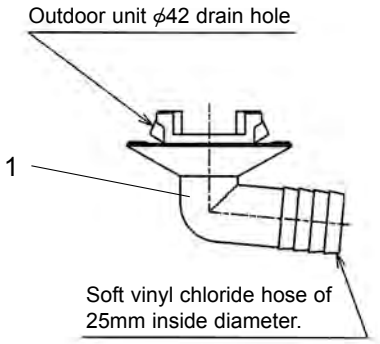
15-6. OUTDOOR UNIT STRUCTURAL PARTS, ELECTRICAL PARTS AND FUNCTIONAL PARTS

Part numbers that are circled are not shown in the illustration.

No.	RoHS	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit	Remarks
					SUZ-KA50VAR2.TH	
1	G	E12 819 297	TOP PANEL		1	
2	G	E12 851 630	OUTDOOR HEAT EXCHANGER		1	
3	G	E12 938 301	OUTDOOR FAN MOTOR	MF	1	RC0J60-□□
4	G	E12 851 501	PROPELLER FAN		1	
5	G	E12 851 290	BASE		1	
6	G	E12 819 232	CABINET		1	
7	G	E12 819 009	HANDLE		1	
8	G	E12 819 521	FAN GUARD		1	
9	G	E12 C34 506	COMPRESSOR RUBBER SET		3	3 RUBBERS/SET
10	G	E12 C37 900	COMPRESSOR	MC	1	SNB130FGBH
11	G	E12 D58 661	STOP VALVE (GAS)		1	ø12.7
12	G	E12 D58 662	STOP VALVE (LIQUID)		1	ø6.35
13	G	E12 851 640	EXPANSION VALVE		1	
14	G	E12 D58 493	EXPANSION VALVE COIL	LEV	1	
15	G	E12 D58 490	R.V. COIL	21S4	1	
16	G	E12 C18 961	4-WAY VALVE		1	
17	G	E12 819 650	VALVE COVER		1	
18	G	E12 819 245	SERVICE PANEL		1	
19	G	E12 D58 306	THERMISTOR SET	RT61,RT62	1	DEFROST, DISCHARGE
20	G	E12 D58 309	AMBIENT TEMPERATURE THERMISTOR	RT65	1	
21	G	E12 C34 307	OUTDOOR HEAT EXCHANGER TEMPERATURE THERMISTOR	RT68	1	
22	G	E12 735 241	FUSE HOLDER		1	
23	G	E12 735 382	FUSE	F61	1	T20AL250V
24	G	E12 927 374	TERMINAL BLOCK	TB1	1	3 P
25	G	E12 D69 374	TERMINAL BLOCK	TB2	1	3 P
26	G	E12 524 451	INVERTER P.C. BOARD		1	Including heatsink and RT64
27	G	E12 D58 337	REACTOR	L61	1	
28	G	E12 D58 233	BACK PANEL (OUT)		1	
29	G	E12 817 009	HANDLE		1	
30	G	E12 851 515	MOTOR SUPPORT		1	
㉛	G	E12 851 936	CAPILLARY TUBE (TAPER PIPE)		1	ø3.6 × ø2.4 × 50
㉜	G	E12 784 382	FUSE	F801	1	T3.15AL250V
㉝	G	E12 661 385	VARISTOR	NR61-64	1	

SUZ-KA25VA.TH SUZ-KA35VA.TH SUZ-KA25VAR1.TH SUZ-KA35VAR1.TH
SUZ-KA25VAH.TH SUZ-KA35VAH.TH SUZ-KA25VAHR1.TH SUZ-KA35VAHR1.TH

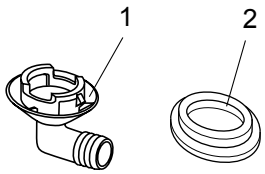
15-7. DRAIN SOCKET



No.	RoHS	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit				Remarks
					SUZ-KA				
					25VA.TH 25VAR1.TH	25VAH.TH 25VAHR1.TH	35VA.TH 35VAR1.TH	35VAH.TH 35VAHR1.TH	
1	G	E12 838 704	DRAIN SOCKET		1		1		

SUZ-KA50VA.TH SUZ-KA50VA$_1$.TH SUZ-KA50VAR2.TH
SUZ-KA60VA.TH SUZ-KA60VA$_1$.TH SUZ-KA60VAR2.TH
SUZ-KA71VA.TH SUZ-KA71VA$_1$.TH

15-8. ACCESSORY



No.	RoHS	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit			Remarks
					SUZ-KA50/60		SUZ-KA71 VA$_{(1)}$.TH	
					VA$_{(1)}$.TH	VAR2.TH		
1	G	E12 817 704	DRAIN SOCKET		1	1	1	
2	G	E12 444 705	DRAIN CAP		2	2	2	ϕ33, 2PCS/SET

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Distributed in Aug. 2011 No.OC322 REVISED EDITION-G
Distributed in Oct. 2009 No.OC322 REVISED EDITION-F PDF 6
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Distributed in Apr. 2005 No.OC322 PDF 8
Made in Japan

New publication, effective Aug. 2011
Specifications subject to change without notice